

SCOTT THOMPSON EXECUTIVE DIRECTOR



MARY FALLIN GOVERNOR

February 8th, 2016



Dear Mr. and Mrs. (b) (6)

The Oklahoma Department of Environmental Quality (DEQ) sampled water from your house well on December 18th, 2015 as part of a reoccurring sampling event that will be performed approximately every six months. DEQ has offered this sampling to residents that live on, or adjacent to the Wilcox Oil Company Superfund Site. You are receiving this letter because you have provided DEQ permission to enter your property and collect a water sample from your well

DEQ sampled for four types of contaminants in your private well. Those are: Biological (E.Coli and Total Coliform), Volatile Organic Compounds (VOCs), Semi-Volatile Organic Compounds (SVOCs) and Metals.

The first page of the sampling results is for E. Coli and Total Coliform Bacteria. E. Coli was <u>not</u> detected in your well as indicated by the "<" symbol in the Results column.

Total Coliform was detected in your well DEQ recommends disinfection of your water well to address the presence of Total Coliform. Once disinfected, DEQ can resample your well to verify that the contaminant has been removed. See the attached instruction sheet on how to disinfect your well.

The second page of the sampling results is for VOCs. VOCs were <u>not</u> detected in your well as indicated by the "<" in the Results column.

Pages 3 through 5 of the sampling results are for SVOCs. SVOCs were <u>not</u> detected in your well as indicated by the "<" symbol in the Qualifier column.

The last page of the sampling results is for Metals Several metals were detected (highlighted) at low concentrations, which is considered normal levels and are not considered to be a health risk.

If you have questions about this letter or the sampling data, do not hesitate to call me at (405) 702-5136. Please contact Katrina Higgins Coltrain with the U.S. Environmental Protection Agency at (214) 665-8143 with any questions about the EPA Superfund process or plans for the Wilcox Site.

Sincerely,

Todd Downham

W. Told Dunk

Project Manager, Wilcox Oil Company Superfund Site



OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY

Land Protection Division Oklahoma Department of Environmental Quality

c. Katrina Higgins Coltrain, U.S. EPA Dallas





State Environmental Laboratory Services Division EPA DRINKING WATER CERTIFICATION #0K00013

General Inquiries: 1-866-412-3057

SAMPLE INFORMATION

Sample Number:

066587.001

Description:

Collected By: TD

Collected:

12/8/15 9:50 am

Received:

12/8/15 4:09 pm

TEST RESULTS

Analysis:

Total Coliforms

Analysis Method:

SM 9223B

Component Name	Result	Unit	Qualifiers	Analyst	Analysis Date	
E. Coli	<1.0	MPN/100 mL		BÇD	12/9/15	
Total Coliform	517.2	MPN/100 mL	-	BCD	12/9/15	



State Environmental Laboratory Services Division EPA DRINKING WATER CERTIFICATION #OK00013

General Inquiries: 1-866-412-3057

SAMPLE INFORMATION

Sample Number:

066587.002

Description:

Collected By: TD

Collected:

12/8/15 9:50 am

Received:

12/8/15 4:09 pm

TEST RESULTS

Analysis:

Volatile Organic Compounds

Analysis Method:

EPA 524.3

Component Name	Result	Unit	Qualifiers	Analyst	Analysis Date	
1,1,1-Trichloroethane	<0.5	µg/L		SAR	12/9/15	
1,1,2-Trichloroethane	<0.5	μg/L		SAR	12/9/15	
1,1-Dichloroethene	<0.5	μg/L		SAR	12/9/15	
1,2,4-Trichlorobenzene	<0.5	µg/L		SAR	12/9/15	
1,2-Dichlorobenzene	<0.5	µg/L		SAR	12/9/15	
1,2-Dichloroethane	<0.5	µg/L		SAR	12/9/15	
1,2-Dichloropropane	<0.5	µg/L		SAR	12/9/15	
1,4-Dichlorobenzene	<0.5	μg/L		SAR	12/9/15	
Benzene	<0.5	µg/L		SAR	12/9/15	
Carbon Tetrachloride	<0.5	µg/L		SAR	12/9/15	
Chlorobenzene	<0.5	µg/L		SAR	12/9/15	
cis-1,2-Dichloroethene	<0.5	μg/L		SAR	12/9/15	
Ethylbenzene	<0.5	μg/L		SAR	12/9/15	
Methyl tert-Butyl Ether (MtBE)	<0.5	µg/L		SAR	12/9/15	
Methylene Chloride	<0.5	µg/L		SAR	12/9/15	
Styrene	<0.5	µg/L		SAR	12/9/15	
Tetrachloroethene	<0.5	μg/L		SAR	12/9/15	
Toluene	<0.5	µg/L		SAR	12/9/15	
trans-1,2-Dichloroethene	<0.5	µg/L		SAR	12/9/15	
Trichloroethene	<0.5	µg/L		SAR	12/9/15	
Vinyl Chloride	<0.5	µg/L		SAR	12/9/15	
Xylenes	<0.5	μg/L		SAR	12/9/15	

Sample Number: 547549
Project Code: SW-WE
Agency Number: 1195
Date Collected: 12/8/2015
Time Collected: 0950

Date Received: 12/8/2015
Date Completed: 12/15/2015

Collected By: TD

PWS Id:

Location Code:

Station: Facility:

Report Date: 12/15/2015

To: TODD DOWNHAM/LPD

OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY STATE ENVIRONMENTAL LABORATORY

707 N. ROBINSON
OKLAHOMA CITY
OKLAHOMA, 73102-6010
General Inquiries: 1-866-412-3057

or selsd@deq.ok.gov

Report of Analysis by GCMS

EPA Drinking Water Cartification #OK00013

CC: FILE COPY

Name	Qualifier	Value	Units	Analyzed	Method	Prep Type
Dilution Factor, Extractab		1.00	·	12/14/15	······································	· · · · · · · · · · · · · · · · · · ·
Acenaphthylene	<	20.0	UG/L	12/14/15	8270DM	
Acenaphthene	<	20.0	UG/L	12/14/15	8270DM	
Anthracene	<	20.0	UG/L	12/14/15	8270DM	
Benzo(b)fluoranthene	<	20.0	UG/L	12/14/15	8270DM	
Benzo(k)fluoranthene	<	20.0	UG/L	12/14/15	8270DM	
Benzo(a)pyrene	<	20.0	UG/L	12/14/15	8270DM	
Bis(2-chloroethyl)ether	<	20.0	UG/L	12/14/15	8270DM	
Bis(2-chloroethoxy)methane	<	20.0	UG/L	12/14/15	8270DM	
Bis(2-chloroisopropyl)ethe:	<	20.0	UG/L	12/14/15	8270DM	
Butylbenzylphthalate	<	20.0	UG/L	12/14/15	8270DM	
Chrysene	<	20.0	UG/L	12/14/15	8270DM	
Diethylphthalate	<	20.0	UG/L	12/14/15	8270DM	
Dimethylphthalate	<	20.0	UG/L	12/14/15	8270DM	
Fluoranthene	<	20.0	UG/L	12/14/15	8270DM	
Fluorene	<	20.0	UG/L	12/14/15	8270DM	
exachlorocyclopentadiene	<	20.0	UG/L	12/14/15	8270DM	
Mexachloroethane in water	<	20.0	UG/L	12/14/15	8270DM	
Indeno (123cd) pyrene	<	20.0	UG/L	12/14/15	8270DM	
Sophorone	<	20.0	UG/L	12/14/15	8270DM	
Iitrosodipropylamine	<	20.0	UG/L	12/14/15	8270DM	
Vitrosodiphenylamine	<	20.0	UG/L	12/14/15	8270DM	
litrobenzene	<	20.0	UG/L	12/14/15	8270DM	
-Chloro-m-cresol	<	20.0	UG/L	12/14/15	8270DM	
henanthrene	<	20.0	UG/L	12/14/15	8270DM	
yrene	<	20.0	UG/L	12/14/15	8270DM	
enzo(ghi)perylene	<	20.0	UG/L	12/14/15	8270DM	
enzo(a) anthracene	<	20.0	UG/L	12/14/15	8270DM	
,2,4-Trichlorobenzene	<	20.0	UG/L	12/14/15	8270DM	
ibenzo(ah)anthracene	<	20.0	UG/L	12/14/15	8270DM	
,4-Dichlorobenzene	<	20.0	UG/L	12/14/15	8270DM	
-Chloronaphthalene	<	20.0	UG/L	12/14/15	8270DM	
Chlorophenol	<	20.0	UG/L	12/14/15	8270DM	

Sample Number: 547549 Project Code: SW-WE Agency Number: 1195

Date Collected: 12/8/2015 Time Collected: 0950

Date Received: 12/8/2015 Date Completed: 12/15/2015

Collected By:

PWS Id:

Location Code:

Station: Facility:

Report Date: 12/15/2015

To: TODD DOWNHAM/LPD

OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY STATE ENVIRONMENTAL LABORATORY

707 N. ROBINSON **OKLAHOMA CITY** OKLAHOMA, 73102-6010

General Inquiries: 1-866-412-3057 or selsd@deq.ok.gov

Report of Analysis by GCMS

EPA Drinking Water Curtification #QK00013

CC: FILE COPY

Name	Qualifier	Value	Units	Analyzed	Method	Prep Type
2-Nitrophenol	<	20.0	UG/L	12/14/15	8270DM	
Di-n-octylphthalate	<	20.0	UG/L	12/14/15	8270DM	
2,4-Dichlorophenol	<	20.0	UG/L	12/14/15	8270DM	
2,4-Dimethylphenol	<	20.0	UG/L	12/14/15	8270DM	
2,4-Dinitrotoluene	<	20.0	UG/L	12/14/15	8270DM	
2,4-Dinitrophenol	<	50.0	UG/L	12/14/15	8270DM	
2,4,6-Trichlorophenol	<	20.0	UG/L	12/14/15	8270DM	
2,6-Dinitrotoluene	<	20.0	UG/L	12/14/15	8270DM	
3,3'-Dichlorobenzidine	<	20.0	UG/L	12/14/15	8270DM	
4-Bromophenylphenyl ether	<	20.0	UG/L	12/14/15	8270DM	
4-Chlorophenyl phenylether	<	20.0	UG/L	12/14/15	8270DM	
4-Nitrophenol	<	50.0	UG/L	12/14/15	8270DM	
4,6-Dinitro-o-cresol	<	50.0	UG/L	12/14/15	8270DM	
Phenol	<	20.0	UG/L	12/14/15	8270DM	
Naphthalene	<	20.0	UG/L	12/14/15	8270DM	
Pentachlorophenol	<	50.0	UG/L	12/14/15	8270DM	
Bis(2-ethylhexyl)phthalate	<	20.0	UG/L	12/14/15	8270DM	
Di-n-butylphthalate	<	20.0	UG/L	12/14/15	8270DM	
Hexachlorobenzene	<	20.0	UG/L	12/14/15	8270DM	
Hexachlorobutadiene	<	20.0	UG/L	12/14/15	8270DM	
Dibenzofuran	<	20.0	UG/L	12/14/15	8270DM	
2-Methylnaphthalene	<	20.0	UG/L	12/14/15	8270DM	
2-Methylphenol	<	20.0	UG/L	12/14/15	8270DM	
4-Methylphenol	<	20.0	UG/L	12/14/15	8270DM	
2,4,5-Trichlorophenol	<	20.0	UG/L	12/14/15	8270DM	
4-Chloroaniline	<	20.0	UG/L	12/14/15	8270DM	
2-Nitroaniline	<	50.0	UG/L	12/14/15	8270DM	
3-Nitroaniline	<	50.0	UG/L	12/14/15	8270DM	
4-Nitroaniline	<	50.0	UG/L	12/14/15	8270DM	

	SURROGATE	RECOVERIES		
COMPOUND			RECOVERY	%

2-FLUOROBIPHENYL

NITROBENZENE-D5

78

78

Sample Number: 547549
Project Code: SW-WE
Agency Number: 1195
Date Collected: 12/8/2015

Time Collected: 0950

Date Received: 12/8/2015 Date Completed: 12/15/2015

Collected By:

PWS Id:

Location Code:

Station: Facility:

Report Date: 12/15/2015

To: TODD DOWNHAM/LPD

OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY

STATE ENVIRONMENTAL LABORATORY

707 N. ROBINSON OKLAHOMA CITY OKLAHOMA, 73102-6010 General Inquiries: 1-866-412-3057

or selsd@deq.ok.gov

Report of Analysis by GCMS

EPA Orinking Water Contribution #OK00013

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COMPOUND	SURROGATE RECOVERIES	RECOVERY %	
2-FLUOROPHENOL		40	
PHENOL-D5		25	
2,4,6-TRIBROMOPHENOL		110	
P-TERPHENYL-D14		95	

	TENTATIVELY ID	ENTIFIED BY		
COMPOUND	NBS LIBRARY SE	ARCH	VALUE	UNITS

NU

Summary

Labs performing analysis on this Sample:

Metals

GCMS

SOURCE: WILCOX
COUNTY: CITY:

SAMPLERS COMMENTS:

/R = 1 · (b) (6)

LW PROJECT ID DEQ-066587

SAMPLE RECEIVING COMMENTS:

ICE; SAMPLE TEMP = 2.7 C

ANALYST'S COMMENTS:

Heather Rhoads (8270DM), (NU) No TICs (tentatively identified compounds) were detected above the lower limit of quantitation for this analysis.

* XXXXX.VC

Sample Number: 547549
Project Code: SW-WE
Agency Number: 1195
Date Collected: 12/8/2015
Time Collected: 0950
Date Received: 12/8/2015

Date Completed: 12/8/2015

Collected By: TD

PWS Id:

Location Code:

Station: Facility:

Report Date: 12/17/2015

To: TODD DOWNHAM/LPD

OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY

STATE ENVIRONMENTAL LABORATORY

707 N. ROBINSON OKLAHOMA CITY OKLAHOMA, 73102-6010

General Inquiries: 1-866-412-3057

or selsd@deq.ok.gov

Report of Analysis by Metals

EPA Drinking Water Certification #OK00013

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Name	Qualifier	Value	Units	Analyzed	Method	Prep Type
Arsenic, Total	<	2.00	UG/L	12/11/15	200.8	
Barium, Total		152	UG/L	12/11/15	200.8	
Beryllium, Total	<	2.00	UG/L	12/11/15	200.8	
Cadmium, Total	<	2.00	UG/L	12/11/15	200.8	
Chromium, Total		5.70	UG/L	12/11/15	200.8	
Copper, Total		7.30	UG/L	12/11/15	200.8	
Lead, Total	<	5.00	UG/L	12/11/15	200.8	
Thallium, Total	<	1.00	UG/L	12/11/15	200.8	
Nickel, Total	<	10.0	UG/L	12/11/15	200.8	
Silver, Total	<	10.0	UG/L	12/11/15	200.8	
Zinc, Total		81.0	UG/L	12/11/15	200.8	
Antimony, Total	<	2.00	UG/L	12/11/15	200.8	
Selenium, Total	<	10.0	UG/L	12/11/15	200.8	
Mercury, Total	<	0.05	UG/L	12/17/15	200.8	

Summary

Labs performing analysis on this Sample:

Metals

GCMS

SOURCE: WILCOX

COUNTY:

CITY:

SAMPLERS COMMENTS:

WR-1; (0) (6) ; LW PROJECT ID DEQ-066587

SAMPLE RECEIVING COMMENTS: ICE; SAMPLE TEMP = 2.7 C

ANALYST'S COMMENTS:

* ANALYST

2184 20096

Greg Goode

State Environmental Laboratory



Disinfection of Individual Water Wells

A water well should be disinfected (I) when the well is newly drilled; (2) when repairs to the well or pumping equipment are completed; (3) when an unsafe sample has been reported or (4) after a disaster situation (for example after a flood or natural disaster), which has impacted your home or business. Ordinary liquid laundry bleach may be used to disinfect a well. Liquid laundry bleach contains 5.25 percent chlorine. Do not use scented bleach as this will contaminate the well.

In order to disinfect a well:

- 1. Pump the well enough in advance to completely remove sediment and other debris caused by construction or repairs.
- 2 Add enough chlorine to make 50 to 100 parts per million solution (use table below).
- 3. Circulate the solution by pumping the discharge back into the well. This can be done by inserting a garden hose through the well seal at the top of the well and pumping until the chlorine is thoroughly mixed (at least fifteen minutes).
- 4. Open each water tap in the system until a strong chlorine odor is present, then close the tap This will also disinfect the house service lines.
- 5. Let the chlorine stand for at least 24 hours, if possible, but no less than two hours.
- 6. Flush the system thoroughly.
- 7. Resample after a one-week period to allow for the possibility of bacterial regrowth.

If the sample has tested positive after disinfection, the well should once again be disinfected, allowing a greater stand/contact time for the chlorine. Resample after one week. Please write 'RETAKE' in the Samplers' Remarks on the Chain of Custody.

The volume of laundry bleach needed to make a 50 parts per million (ppm) solution may be found on the table below if one knows the depth of the water in the well and the casing (pipe) size. This volume may be doubled to achieve a 100 ppm solution if desired. Further assistance

regarding disinfection of your well may be obtained from your local environmental specialist. Questions about the testing can be answered at the State Environmental Lab at (405) 702-1000 or 1-866-412-3057 or via email at selsd@deq.ok.gov.

	Amount of Chlorine Bleach Needed Well Diameter								
Depth of Well	3 in.	6 in.	9 in.	12 in.					
50 ft.	3.02	8 oz	25 oz.	50 oz					
100 ft.	6 oz.	20 oz.	50 oz.	100 oz.					
150 ft.	8 oz.	30 oz.	75 oz	150 oz					
8 oz. = 1 cup	25 oz. = 3 cups	50 oz. = 6 ¹¹⁴ cups	100 oz = 12 1/2 cups	150 oz = 19 cups, 1/4 gals					



February 8th, 2016



Dear Mr. and Mrs. (b) (6)

The Oklahoma Department of Environmental Quality (DEQ) sampled water from your house well on December 18th, 2015 as part of a reoccurring sampling event that will be performed approximately every six months. DEQ has offered this sampling to residents that live on, or adjacent to the Wilcox Oil Company Superfund Site. You are receiving this letter because you have provided DEQ permission to enter your property and collect a water sample from your well.

DEQ sampled for four types of contaminants in your private well. Those are: Biological (E Coli and Total Coliform). Volatile Organic Compounds (VOCs), Semi-Volatile Organic Compounds (SVOCs) and Metals.

The first page of the sampling results is for E. Coli and Total Coliform Bacteria. E. Coli was <u>not</u> detected in your well as indicated by the "<" symbol in the Results column.

Total Coliform was detected in your well DEQ recommends disinfection of your water well to address the presence of Total Coliform. Once disinfected, DEQ can resample your well to verify that the contaminant has been removed. See the attached instruction sheet on how to disinfect your well.

The second page of the sampling results is for VOCs. VOCs were <u>not</u> detected in your well as indicated by the "<" in the Results column.

Pages 3 through 5 of the sampling results are for SVOCs. SVOCs were <u>not</u> detected in your well as indicated by the "<" symbol in the Qualifier column.

The last page of the sampling results is for Metals. Several metals were detected (highlighted) at low concentrations, which is considered normal levels and are not considered to be a health risk.

If you have questions about this letter or the sampling data, do not hesitate to call me at (405) 702-5136. Please contact Katrina Higgins Coltrain with the U.S. Environmental Protection Agency at (214) 665-8143 with any questions about the EPA Superfund process or plans for the Wilcox Site.

Sincerely,

Todd Downham

WTall Danh

Project Manager, Wilcox Oil Company Superfund Site

MARY FALLIN GOVERNOR

OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY

Land Protection Division

c. Katrina Higgins Coltrain, U.S. EPA Dallas

Oklahoma Department of Environmental Quality





State Environmental Laboratory Services Division EPA DRINKING WATER CERTIFICATION #0K00013

General Inquiries: 1-866-412-3057

SAMPLE INFORMATION

Sample Number:

066587.003

Description:

Collected By: TD

Collected:

12/8/15 11:15 am

12/8/15 4:09 pm Received:

TEST RESULTS

Analysis: **Total Coliforms** Analysis Method:

SM 9223B

Component Name	Result	Unit	Qualifiers	Analyst	Analysis Date
E. Coli	<1.0	MPN/100 mL		BCD	12/9/15
Total Coliform	43.7	MPN/100 mL		BCD	12/9/15



State Environmental Laboratory Services Division EPA DRINKING WATER CERTIFICATION #0K00013

General Inquiries: 1-866-412-3057

SAMPLE INFORMATION

Sample Number:

066587.004

Description:

Collected By: TD

Collected:

12/8/15 11:15 am

Received:

12/8/15 4:09 pm

TEST RESULTS

Analysis:

Volatile Organic Compounds

Analysis Method:

EPA 524.3

Commonant Name	Desult	11-4	Qualifiana	A	Anabasia Data
Component Name	Result	Unit	Qualifiers	Analyst	Analysis Date
1,1,1-Trichloroethane	<0.5	μg/L		SAR	12/9/15
1,1,2-Trichloroethane	<0.5	μg/L		SAR	12/9/15
1,1-Dichloroethene	<0.5	µg/L		SAR	12/9/15
1,2,4-Trichlorobenzene	<0.5	μg/L		SAR	12/9/15
1,2-Dichlorobenzene	<0.5	μg/L		SAR	12/9/15
1,2-Dichloroethane	<0.5	μg/L		SAR	12/9/15
1,2-Dichloropropane	<0.5	µg/L		SAR	12/9/15
1,4-Dichlorobenzene	<0.5	μg/L		SAR	12/9/15
Benzene	<0.5	µg/L		SAR	12/9/15
Carbon Tetrachloride	<0.5	µg/L		SAR	12/9/15
Chlorobenzene	<0.5	μg/L		SAR	12/9/15
cis-1,2-Dichloroethene	<0.5	μg/L		SAR	12/9/15
Ethylbenzene	<0.5	µg/L		SAR	12/9/15
Methyl tert-Butyl Ether (MtBE)	<0.5	µg/L		SAR	12/9/15
Methylene Chloride	<0.5	µg/L		SAR	12/9/15
Styrene	<0.5	µg/L		SAR	12/9/15
Tetrachloroethene	<0.5	µg/L		SAR	12/9/15
Toluene	<0.5	µg/L		SAR	12/9/15
trans-1,2-Dichloroethene	<0.5	μg/L		SAR	12/9/15
Trichloroethene	<0.5	μg/L		SAR	12/9/15
Vinyl Chloride	<0.5	µg/L		SAR	12/9/15
Xylenes	<0.5	μg/L		SAR	12/9/15

Sample Number: 547550
Project Code: SW-WE
Agency Number: 1195
Date Collected: 12/8/2015
Time Collected: 1115

Date Received: 12/8/2015 Date Completed: 12/15/2015

Collected By: TI

PWS Id:

Location Code:

Station: Facility:

Report Date: 12/15/2015

To: TODD DOWNHAM/LPD

OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY

STATE ENVIRONMENTAL LABORATORY

707 N. ROBINSON OKLAHOMA CITY OKLAHOMA, 73102-6010

General Inquiries: 1-866-412-3057

or selsd@deq.ok.gov

Report of Analysis by GCMS

EPA Drawing Water Certification #OK00013

CC: FILE COPY

Name	Qualifier	Value	Units	Analyzed	Method	Prep Type
Dilution Factor, Extractab		1.00		12/14/15		
Acenaphthylene	<	20.0	UG/L	12/14/15	8270DM	
Acenaphthene	<	20.0	UG/L	12/14/15	8270DM	
Anthracene	<	20.0	UG/L	12/14/15	8270DM	
Benzo(b) fluoranthene	<	20.0	UG/L	12/14/15	8270DM	
Benzo(k)fluoranthene	<	20.0	UG/L	12/14/15	8270DM	
Benzo(a)pyrene	<	20.0	UG/L	12/14/15	8270DM	
Bis(2-chloroethyl)ether	<	20.0	UG/L	12/14/15	8270DM	
Bis(2-chloroethoxy)methane	<	20.0	UG/L	12/14/15	8270DM	
Bis(2-chloroisopropyl)ether	<	20.0	UG/L	12/14/15	8270DM	
Butylbenzylphthalate	<	20.0	UG/L	12/14/15	8270DM	
Chrysene	<	20.0	UG/L	12/14/15	8270DM	
Diethylphthalate	<	20.0	UG/L	12/14/15	8270DM	
Dimethylphthalate	<	20.0	UG/L	12/14/15	8270DM	
Pluoranthene	<	20.0	UG/L	12/14/15	8270DM	
Fluorene	<	20.0	UG/L	12/14/15	8270DM	
Mexachlorocyclopentadiene	<	20.0	UG/L	12/14/15	8270DM	
Mexachloroethane in water	<	20.0	UG/L	12/14/15	8270DM	
Indeno (123cd) pyrene	<	20.0	UG/L	12/14/15	8270DM	
sophorone	<	20.0	UG/L	12/14/15	8270DM	
Jitrosodipropylamine	<	20.0	UG/L	12/14/15	8270DM	
Jitrosodiphenylamine	<	20.0	UG/L	12/14/15	8270DM	
litrobenzene	<	20.0	UG/L	12/14/15	8270DM	
-Chloro-m-cresol	<	20.0	UG/L	12/14/15	8270DM	
henanthrene	<	20.0	UG/L	12/14/15	8270DM	
yrene	<	20.0	UG/L	12/14/15	8270DM	
enzo(ghi)perylene	<	20.0	UG/L	12/14/15	8270DM	
enzo(a)anthracene	<	20.0	UG/L	12/14/15	8270DM	
,2,4-Trichlorobenzene	<	20.0	UG/L	12/14/15	8270DM	
ibenzo(ah)anthracene	<	20.0	UG/L	12/14/15	8270DM	
,4-Dichlorobenzene	<	20.0	UG/L	12/14/15	8270DM	
-Chloronaphthalene	<	20.0	UG/L	12/14/15	8270DM	
-Chlorophenol	<	20.0	UG/L	12/14/15	8270DM	

Sample Number: 547550 Project Code: SW-WE Agency Number: 1195 Date Collected: 12/8/2015

Time Collected: 1115

Date Received: 12/8/2015

Date Completed: 12/15/2015

Collected By: TD

PWS Id:

Location Code:

Station: Facility:

Report Date: 12/15/2015

To: TCDD DOWNHAM/LPD

OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY

STATE ENVIRONMENTAL LABORATORY

707 N. ROBINSON
OKLAHOMA CITY
OKLAHOMA, 73102-6010

General Inquiries: 1-866-412-3057

or selsd@deq.ok.gov

Report of Analysis by GCMS

EPA Drinking Water Cardification #OK00013

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Name	Qualifier	Value	Units	Analyzed	Method	Prep Type
2-Nitrophenol	<	2010	UG/L	12/14/15	8270DM	· · · · · · · · · · · · · · · · · · ·
Di-n-octylphthalate	<	20.0	UG/L	12/14/15	8270DM	
2,4-Dichlorophenol	<	20.0	UG/L	12/14/15	8270DM	
2,4-Dimethylphenol	<	20.0	UG/L	12/14/15	8270DM	
2,4-Dinitrotoluene	<	20.0	UG/L	12/14/15	8270DM	
2,4-Dinitrophenol	<	50.0	UG/L	12/14/15	8270DM	
2,4,6-Trichlorophenol	<	20.0	UG/L	12/14/15	8270DM	
2,6-Dinitrotoluene	<	20.0	UG/L	12/14/15	8270DM	
3,3'-Dichlorobenzidine	<	20.0	UG/L	12/14/15	8270DM	
4-Bromophenylphenyl ether	<	20.0	UG/L	12/14/15	8270DM	
4-Chlorophenyl phenylether	<	20.0	UG/L	12/14/15	8270DM	
4-Nitrophenol	<	50.0	ng/r	12/14/15	8270DM	
4,6-Dinitro-o-cresol	<	50,0	UG/L	12/14/15	8270DM	
Phenol	<	2010	UG/L	12/14/15	8270DM	
Naphthalene	<	20.0	UG/L	12/14/15	8270DM	
Pentachlorophenol	<	50.0	UG/L	12/14/15	8270DM	
Bis(2-ethylhexyl)phthalate	<	20.0	UG/L	12/14/15	8270DM	
Di-n-butylphthalate	<	20.0	UG/L	12/14/15	8270DM	
Hexachlorobenzene	<	20.0	UG/L	12/14/15	8270DM	
Hexachlorobutadiene	<	20.0	UG/L	12/14/15	8270DM	
Dibenzofuran	<	20.0	UG/L	12/14/15	8270DM	
2-Methylnaphthalene	<	20.0	UG/L	12/14/15	8270DM	
2-Methylphenol	<	20.0	UG/L	12/14/15	8270DM	
4-Methylphenol	5	20.0	UG/L	12/14/15	8270DM	
2,4,5-Trichlorophenol	ç	20.0	UG/L	12/14/15	8270DM	
4-Chloroaniline	c	20.0	UG/L	12/14/15	8270DM	
2-Nitroaniline	<	50.0	UG/L	12/14/15	8270DM	
3-Nitroaniline	<	50.0	UG/L	12/14/15	8270DM	
4-Nitroaniline	<	50.0	UG/L	12/14/15	8270DM	

	SURROGATE	RECOVERIES		
COMPOUND	DUMMOUNTE	THE TANKE OF THE T	RECOVERY	%

PHENOL-D5 2-FLUOROPHENOL 23

37

a i Hookoi iibi

Sample Number: 547550 Project Code: SW-WE Agency Number: 1195 Date Collected: 12/8/2015 Time Collected: 1115

Date Received: 12/8/2015 Date Completed: 12/15/2015

Collected By:

PWS Id:

Location Code:

Station: Facility:

Report Date:

12/15/2015

To: TODD DOWNHAM/LPD

OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY

STATE ENVIRONMENTAL LABORATORY

707 N. ROBINSON OKLAHOMA CITY OKLAHOMA, 73102-6010 General Inquiries: 1-866-412-3057

or selsd@deq.ok.gov

Report of Analysis by GCMS

EPA Drinking Water Cartilleation #0K08013

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COMPOUND	SURROGATE RECOVERIES	RECOVERY %	
P-TERPHENYL-D14		97	
2,4,6-TRIBROMOPHENOL		94	
NITROBENZENE-D5		73	
2-FLUOROBIPHENYL		78	

	TENTATIVELY	IDENTIFIED BY		
COMPOUND	NBS LIBRARY	SEARCH	VALUE	UNITS

NU

Summary

Labs performing analysis on this Sample:

Metals

GCMS

SOURCE: WILCOX

COUNTY:

CITY:

SAMPLERS COMMENTS:

WR-2; (b) (6)

LW PROJECT ID DEQ-066587

SAMPLE RECEIVING COMMENTS:

ICE; SAMPLE TEMP = 0.9 C

ANALYST'S COMMENTS:

Heather Rhoads (8270DM), (NU) No TICs (tentatively identified compounds) were detected above the lower limit of quantitation for this analysis.

Sample Number: 547550 Project Code: SW-WE Agency Number: 1195

Date Collected: 12/8/2015

Time Collected: 1115

Date Received: 12/8/2015 Date Completed: 12/17/2015

Collected By:

PWS Id:

Location Code:

Station: Facility:

Report Date: 12/17/2015

To: TODD DOWNHAM/LPD

OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY

STATE ENVIRONMENTAL LABORATORY

707 N. ROBINSON **OKLAHOMA CITY** OKLAHOMA, 73102-6010

General Inquiries: 1-866-412-3057

or selsd@deq.ok.gov

Report of Analysis by Metals

EPA Drinking Water Certification #OK00013

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Name	Qualifier	Value	Units	Analyzed	Method	Prep Type
Arsenic, Total	<	2.00	UG/L	12/11/15	200.8	13.0
Barium, Total	<	5.00	UG/L	12/11/15	200.8	
Beryllium, Total	<	2.00	UG/L	12/11/15	200.8	
Cadmium, Total	<	2.00	UG/L	12/11/15	200.8	
Chromium, Total	<	5.00	UG/L	12/11/15	200.8	
Copper, Total		14.8	UG/L	12/11/15	200.8	
Lead, Total	<	5.00	UG/L	12/11/15	200.8	
Thallium, Total	<	1.00	UG/L	12/11/15	200.8	
Nickel, Total	<	10.0	UG/L	12/11/15	200.8	
Silver, Total	<	10.0	UG/L	12/11/15	200.8	
Zinc, Total		12.5	UG/L	12/11/15	200.8	
Antimony, Total	<	2.00	UG/L	12/11/15	200.8	
Selenium, Total	<	10.0	UG/L	12/11/15	200.8	
Mercury, Total	<	0.05	UG/L	12/17/15	200.8	

Summary

Labs performing analysis on this Sample:

Metals

GCMS

SOURCE: WILCOX

COUNTY:

CITY:

SAMPLERS COMMENTS:

LW PROJECT ID DEQ-066587

SAMPLE RECEIVING COMMENTS: ICE; SAMPLE TEMP = 0.9 C

ANALYST'S COMMENTS:

* ANALYST

State Environmental Laboratory



Disinfection of Individual Water Wells

A water well should be disinfected (1) when the well is newly drilled; (2) when repairs to the well or pumping equipment are completed; (3) when an unsafe sample has been reported or (4) after a disaster situation (for example after a flood or natural disaster), which has impacted your home or business. Ordinary liquid laundry bleach may be used to disinfect a well. Liquid laundry bleach contains 5.25 percent chlorine. Do not use scented bleach as this will contaminate the well.

In order to disinfect a well:

- 1. Pump the well enough in advance to completely remove sediment and other debris caused by construction or repairs.
- 2. Add enough chlorine to make 50 to 100 parts per million solution (use table below).
- 3. Circulate the solution by pumping the discharge back into the well. This can be done by inserting a garden hose through the well seal at the top of the well and pumping until the chlorine is thoroughly mixed (at least fifteen minutes).
- 4. Open each water tap in the system until a strong chlorine odor is present, then close the tap. This will also disinfect the house service lines.
- 5. Let the chlorine stand for at least 24 hours, if possible, but no less than two hours.
- 6. Flush the system thoroughly.
- 7. Resample after a one-week period to allow for the possibility of bacterial regrowth.

if the sample has tested positive after disinfection, the well should once again be disinfected, allowing a greater stand/contact time for the chlorine. Resample after one week. Please write 'RETAKE' in the Samplers' Remarks on the Chain of Custody.

The volume of laundry bleach needed to make a 50 parts per million (ppm) solution may be found on the table below if one knows the depth of the water in the well and the casing (pipe) size. This volume may be doubled to achieve a 100 ppm solution if desired. Further assistance

regarding disinfection of your well may be obtained from your local environmental specialist. Questions about the testing can be answered at the State Environmental Lab at (405) 702-1000 or 1-866-412-3057 or via email at selsd@deq.ok.gov.

	Amount of Chlorine Bleach Needed Well Diameter							
Depth of Well	3 in,	6 in.	9 in.	12 in.				
50 fc	3 oz	8 oz.	75 oz.	90 oz				
100 ft.	6 oz.	20 oz.	50 oz	100 oz.				
150 ft	8 oz.	30 oz.	75 oz.	150 cm				
8 oz. = 1 cup	25 oz. = 3 cups	50 oz. = 6 ^{1/4} cups	100 oz = 12 1/2 cups	150 oz = 19 cups, i				



OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY

February 8th, 2016



Dear Ms. (b) (6),

The Oklahoma Department of Environmental Quality (DEQ) sampled water from your house well on December 18th, 2015 as part of a reoccurring sampling event that will be performed approximately every six months. DEQ has offered this sampling to residents that live on, or adjacent to the Wilcox Oil Company Superfund Site. You are receiving this letter because you have provided DEQ permission to enter your property and collect a water sample from your well.

DEQ sampled for four types of contaminants in your private well. Those are: Biological (E.Coli and Total Coliform), Volatile Organic Compounds (VOCs), Semi-Volatile Organic Compounds (SVOCs) and Metals.

The first page of the sampling results is for E. Coli and Total Coliform Bacteria. E. Coli was <u>not</u> detected in your well as indicated by the "<" symbol in the Results column

Total Coliform was detected in your well DEQ recommends disinfection of your water well to address the presence of Total Coliform. Once disinfected, DEQ can resample your well to verify that the contaminant has been removed. See the attached instruction sheet on how to disinfect your well.

The second page of the sampling results is for VOCs. VOCs were <u>not</u> detected in your well as indicated by the "<" in the Results column.

Pages 3 through 5 of the sampling results are for SVOCs. SVOCs were <u>not</u> detected in your well as indicated by the "<" symbol in the Qualifier column.

The last page of the sampling results is for Metals Several metals were detected (highlighted) at low concentrations, which is considered normal levels and are not considered to be a health risk.

If you have questions about this letter or the sampling data, do not hesitate to call me at (405) 702-5136. Please contact Katrina Higgins Coltrain with the U.S. Environmental Protection Agency at (214) 665-8143 with any questions about the EPA Superfund process or plans for the Wilcox Site.

Sincerely,

Todd Downham

W. Tall Danh

Project Manager, Wilcox Oil Company Superfund Site

MARY FALLIN GOVERNOR

OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY

Land Protection Division Oklahoma Department of Environmental Quality

c. Katrina Higgins Coltrain, U.S. EPA Dallas





State Environmental Laboratory Services Division EPA DRINKING WATER CERTIFICATION #OKODD13

General Inquiries: 1-866-412-3057

SAMPLE INFORMATION

066587.005

Collected By: TD

Description:

Sample Number:

Collected:

12/8/15 12:00 pm

Received:

12/8/15 4:09 pm

TEST RESULTS

Analysis:

Total Coliforms

Analysis Method:

SM 9223B

Component Name	Result	Unit	Qualifiers	Analyst	Analysis Date
E. Coli	<1.0	MPN/100 mL		BCD	12/9/15
Total Coliform	1.0	MPN/100 mL		BCD	12/9/15



State Environmental Laboratory Services Division

EPA DRINKING WATER CERTIFICATION #OK00013

General Inquiries: 1-866-412-3057

SAMPLE INFORMATION

Sample Number:

066587.006

Collected By: TD

Description:

(b) (6)

Collected: 12/8/15 12:00 pm

Received:

12/8/15 4:09 pm

TEST RESULTS

Analysis:

Volatile Organic Compounds

Analysis Method:

EPA 524.3

		Contract Society	estati estada	o on a	W. 01 Dec 1993 CC
Component Name	Result	Unit	Qualifiers	Analyst	Analysis Date
1,1,1-Trichloroethane	<0.5	μg/L		SAR	12/9/15
1,1,2-Trichloroethane	<0.5	μg/L		SAR	12/9/15
1,1-Dichloroethene	< 0.5	μg/L		SAR	12/9/15
1,2,4-Trichlorobenzene	<0.5	µg/L		SAR	12/9/15
1,2-Dichlorobenzene	<0.5	μg/L		SAR	12/9/15
1,2-Dichloroethane	<0.5	µg/L		SAR	12/9/15
1,2-Dichloropropane	<0.5	μg/L		SAR	12/9/15
1,4-Dichlorobenzene	<0.5	μg/L		SAR	12/9/15
Benzene	<0.5	µg/L		SAR	12/9/15
Carbon Tetrachloride	<0.5	µg/L		SAR	12/9/15
Chlorobenzene	<0.5	μg/L		SAR	12/9/15
cis-1,2-Dichloroethene	<0.5	μg/L		SAR	12/9/15
Ethylbenzene	<0.5	μg/L		SAR	12/9/15
Methyl tert-Butyl Ether (MtBE)	<0.5	µg/L		SAR	12/9/15
Methylene Chloride	<0.5	μg/L		SAR	12/9/15
Styrene	<0.5	µg/L		SAR	12/9/15
Tetrachloroethene	<0.5	μg/L		SAR	12/9/15
Toluene	<0.5	μg/L		SAR	12/9/15
trans-1,2-Dichloroethene	<0.5	µg/L		SAR	12/9/15
Trichloroethene	<0.5	µg/L		SAR	12/9/15
Vinyl Chloride	<0.5	µg/L		SAR	12/9/15
Xylenes	<0.5	μg/L		SAR	12/9/15

Sample Number: 547551
Project Code: SW-WE
Agency Number: 1195
Date Collected: 12/8/2015
Time Collected: 1200
Date Received: 12/8/2015

Date Completed: 12/15/2015 Collected By: TD

PWS Id:

Location Code:

Station: Facility:

Report Date: 12/15/2015

To: TODD DOWNHAM/LPD

OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY

STATE ENVIRONMENTAL LABORATORY

707 N. ROBINSON OKLAHOMA CITY OKLAHOMA, 73102-6010

General Inquiries: 1-866-412-3057

or seisd@deq.ok.gov

Report of Analysis by GCMS

EPA Crinking Water Cortification #CK00013

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Name	Qualifier	Value	Units	Analyzed	Method	Prep Type
Dilution Factor, Extractab	•	1.00		12/14/15		
Acenaphthylene	<	20.0	UG/L	12/14/15	8270DM	
Acenaphthene	<	20.0	UG/L	12/14/15	8270DM	
Anthracene	<	20.0	UG/L	12/14/15	8270DM	
Benzo(b)fluoranthene	<	20.0	UG/L	12/14/15	8270DM	
Benzo(k)fluoranthene	<	20.0	UG/L	12/14/15	8270DM	
Benzo(a)pyrene	<	20.0	UG/L	12/14/15	8270DM	
Bis(2-chloroethyl)ether	<	20.0	UG/L	12/14/15	8270DM	
Bis(2-chloroethoxy)methane	<	20.0	UG/L	12/14/15	8270DM	
Bis(2-chloroisopropyl)ether	<	20.0	UG/L	12/14/15	8270DM	
Butylbenzylphthalate	<	20.0	UG/L	12/14/15	8270DM	
Chrysene	<	20.0	UG/L	12/14/15	8270DM	
Diethylphthalate	<	20.0	UG/L	12/14/15	8270DM	
Dimethylphthalate	<	20.0	UG/L	12/14/15	8270DM	
Fluoranthene	<	20.0	UG/L	12/14/15	8270DM	
Fluorene	<	20.0	UG/L	12/14/15	8270DM	
Hexachlorocyclopentadiene	<	20.0	UG/L	12/14/15	8270DM	
Hexachloroethane in water	<	20.0	UG/L	12/14/15	8270DM	
Indeno (123cd) pyrene	<	20.0	UG/L	12/14/15	8270DM	
Isophorone	<	20.0	UG/L	12/14/15	8270DM	
Nitrosodipropylamine	<	20.0	UG/L	12/14/15	8270DM	
Nitrosodiphenylamine	<	20.0	UG/L	12/14/15	8270DM	
Nitrobenzene	<	20.0	UG/L	12/14/15	8270DM	
o-Chloro-m-cresol	<	20.0	UG/L	12/14/15	8270DM	
Phenanthrene	<	20.0	UG/L	12/14/15	8270DM	
Pyrene	<	20.0	UG/L	12/14/15	8270DM	
Benzo(ghi)perylene	<	20.0	UG/L	12/14/15	8270DM	
Benzo(a)anthracene	<	20.0	UG/L	12/14/15	8270DM	
,2,4-Trichlorobenzene	<	20.0	UG/L	12/14/15	8270DM	
Dibenzo(ah)anthracene	<	20.0	UG/L	12/14/15	8270DM	
,4-Dichlorobenzene	<	20.0	UG/L	12/14/15	8270DM	
-Chloronaphthalene	<	20.0	UG/L	12/14/15	8270DM	
-Chlorophenol	<	20.0	UG/L	12/14/15	8270DM	

Sample Number: 547551 Project Code: SW-WE Agency Number: 1195 Date Collected: 12/8/2015 Time Collected: 1200

Date Received: 12/8/2015 Date Completed: 12/15/2015

Collected By:

PWS Id:

Location Code:

Station: Facility:

Report Date: 12/15/2015

To: TODD DOWNHAM/LPD

OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY

STATE ENVIRONMENTAL LABORATORY

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General Inquiries: 1-866-412-3057

or selsd@deq.ok.gov

Report of Analysis by GCMS

EPA Drinking Water Certification #OK00013

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Name	Qualifier	Value	Units	Analyzed	Method	Prep Type
2-Nitrophenol	4	20.0	UG/L	12/14/15	8270DM	
Di-n-octylphthalate	c	20.0	UG/L	12/14/15	8270DM	
2,4-Dichlorophenol	<	20.0	UG/L	12/14/15	8270DM	
2,4-Dimethylphenol	<	20.0	UG/L	12/14/15	8270DM	
2,4-Dinitrotoluene	<	20.0	UG/L	12/14/15	8270DM	
2,4-Dinitrophenol	<	50.0	UG/L	12/14/15	8270DM	
2,4,6-Trichlorophenol	€	20.0	UG/L	12/14/15	8270DM	
2,6-Dinitrotoluene	¢	20.0	UG/L	12/14/15	8270DM	
3,3'-Dichlorobenzidine	<	20.0	UG/L	12/14/15	8270DM	
4-Bromophenylphenyl ether	<	20.0	UG/L	12/14/15	8270DM	
4-Chlorophenyl phenylether	<	20.0	UG/L	12/14/15	8270DM	
1-Nitrophenol	<	50.0	UG/L	12/14/15	8270DM	
4,6-Dinitro-o-cresol	<	50.0	UG/L	12/14/15	8270DM	
Phenol	<	20.0	UG/L	12/14/15	8270DM	
Naphthalene	<	20.0	UG/L	12/14/15	8270DM	
Pentachlorophenol	<	50.0	UG/L	12/14/15	8270DM	
Bis(2-ethylhexyl)phthalate	<	20.0	UG/L	12/14/15	8270DM	
oi-n-butylphthalate	<	20.0	UG/L	12/14/15	8270DM	
Mexachlorobenzene	<	20.0	UG/L	12/14/15	8270DM	
Mexachlorobutadiene	<	20.0	UG/L	12/14/15	8270DM	
ibenzofuran	<	20.0	UG/L	12/14/15	8270DM	
-Methylnaphthalene	<	20.0	UG/L	12/14/15	8270DM	
-Methylphenol	<	20.0	UG/L	12/14/15	8270DM	
-Methylphenol	9	20.0	UG/L	12/14/15	8270DM	
,4,5-Trichlorophenol	<	20.0	UG/L	12/14/15	8270DM	
-Chloroaniline	<	20.0	UG/L	12/14/15	8270DM	
-Nitroaniline	et.	50.0	UG/L	12/14/15	8270DM	
-Nitroaniline	<	50.0	UG/L	12/14/15	8270DM	
-Nitroaniline	<	50.0	UG/L	12/14/15	8270DM	

	SURROGATE	RECOVERIES		
COMPOUND			RECOVERY %	

2-FLUOROPHENOL

PHENOL-D5

Sample Number: 547551
Project Code: SW-WE
Agency Number: 1195
Date Collected: 12/8/2015
Time Collected: 1200
Date Received: 12/8/2015

Date Completed: 12/15/2015

Collected By:

PWS Id:

Location Code:

Station: Facility:

Report Date: 12/15/2015

To: TODD DOWNHAM/LPD

OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY

STATE ENVIRONMENTAL LABORATORY

707 N. ROBINSON OKLAHOMA CITY OKLAHOMA, 73102-6010

General Inquiries: 1-866-412-3057

or selsd@deq.ok.gov

Report of Analysis by GCMS

EPA Orinking Water Camilication #0K00013

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COMPOUND	SURROGATE RECOVERIES	RECOVERY %	
NITROBENZENE-D5		77	
P-TERPHENYL-D14		103	
2,4,6-TRIBROMOPHENOL		118	
2-FLUOROBIPHENYL		82	

	TENTATIVELY IDENTIFIED BY	
COMPOUND	NBS LIBRARY SEARCH	VALUE UNITS

NU

Summary

Labs performing analysis on this Sample:

Metals

GCMS

SOURCE: WILCOX

COUNTY:

CITY:

SAMPLERS COMMENTS:

WR-3; (b) (6) ; LW PROJECT ID DEQ-066587

SAMPLE RECEIVING COMMENTS:

ICE; SAMPLE TEMP = 0.4 C

ANALYST'S COMMENTS:

Heather Rhoads (8270DM), (NU) No TICs (tentatively identified compounds) were detected above the lower limit of quantitation for this analysis.

8

Sample Number: 547551
Project Code: SW-WE
Agency Number: 1195
Date Collected: 12/8/2015
Time Collected: 1200

Date Received: 12/8/2015 Date Completed: 12/17/2015

Collected By: TD

PWS Id:

Location Code:

Station: Facility:

Report Date: 12/17/2015

To: TODD DOWNHAM/LPD

OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY

STATE ENVIRONMENTAL LABORATORY

707 N. ROBINSON OKLAHOMA CITY OKLAHOMA, 73102-6010

General Inquiries: 1-866-412-3057

or selsd@deq.ok.gov

Report of Analysis by Metals

EPA Drinking Water Certification #OK00013

CC: FILE COPY

Name	Qualifier	Value	Units	Analyzed	Method	Prep Type
Arsenic, Total	<	2.00	UG/L	12/11/15	200.8	
Barium, Total		36.1	UG/L	12/11/15	200.8	
Beryllium, Total	<	2.00	UG/L	12/11/15	200.8	
Cadmium, Total	<	2.00	UG/L	12/11/15	200.8	
Chromium, Total	<	5.00	UG/L	12/11/15	200.8	
Copper, Total	<	5.00	UG/L	12/11/15	200.8	
Lead, Total	<	5.00	UG/L	12/11/15	200.8	
Fhallium, Total	<	1.00	UG/L	12/11/15	200.8	
Nickel, Total	<	10.0	UG/L	12/11/15	200.8	
Silver, Total	<	10.0	UG/L	12/11/15	200.8	
Zinc, Total	<	10.0	UG/L	12/11/15	200.8	
Antimony, Total	<	2.00	UG/L	12/11/15	200.8	
Selenium, Total	<	10.0	UG/L	12/11/15	200.8	
Mercury, Total	<	0.05	UG/L	12/17/15	200.8	

Summary

Labs performing analysis on this Sample:

Metals

GCMS

SOURCE: WILCOX

COUNTY: CITY:

SAMPLERS COMMENTS:

WR-3; (b) (6) LW PROJECT ID DEQ-066587

SAMPLE RECEIVING COMMENTS: ICE; SAMPLE TEMP = 0.4 C

ANALYST'S COMMENTS:

* ANALYST

Grey Goode

Greg Goode

State Environmental Laboratory



Disinfection of Individual Water Wells

A water well should be disinfected (I) when the well is newly drilled; (2) when repairs to the well or pumping equipment are completed; (3) when an unsafe sample has been reported or (4) after a disaster situation (for example after a flood or natural disaster), which has impacted your home or business. Ordinary liquid laundry bleach may be used to disinfect a well. Liquid laundry bleach contains 5.25 percent chlorine. Do not use scented bleach as this will contaminate the well.

In order to disinfect a well:

- Pump the well enough in advance to completely remove sediment and other debris caused by construction or repairs.
- 2. Add enough chlorine to make 50 to 100 parts per million solution (use table below).
- 3. Circulate the solution by pumping the discharge back into the well. This can be done by inserting a garden hose through the well seal at the top of the well and pumping until the chlorine is thoroughly mixed (at least fifteen minutes).
- 4. Open each water tap in the system until a strong chlorine odor is present, then close the tap This will also disinfect the house service lines.
- 5. Let the chlorine stand for at least 24 hours, if possible, but no less than two hours
- 6. Flush the system thoroughly.
- 7. Resample after a one-week period to allow for the possibility of bacterial regrowth.

If the sample has tested positive after disinfection, the well should once again be disinfected, allowing a greater stand/contact time for the chlorine. Resample after one week. Please write 'RETAKE' in the Sampler's Remarks on the Chain of Custody.

The volume of laundry bleach needed to make a 50 parts per million (ppm) solution may be found on the table below if one knows the depth of the water in the well and the casing (pipe) size. This volume may be doubled to achieve a 100 ppm solution if desired. Further assistance

regarding disinfection of your well may be obtained from your local environmental specialist. Questions about the testing can be answered at the State Environmental Lab at (405) 702-1000 or 1-866-412-3057 or via email at selsd@deq.ok.gov.

	Amount of Chlorine Bleach Needed								
	Well Diameter								
Depth of Well	3 in:	6 in:	9 in.	12 in.					
50 ft.	3 oz.	8 oz.	25 oz	50 oz					
100 ft.	6 oz.	20 oz	50 oz.	100 oz.					
150 ft	8 cz	30 cz	75 cz	150 oz.					
8 oz. = 1 cup	25 oz. = 3 cups	50 oz. = 614 cups	100 oz = 12 ^{1/2} cups	150 oz. = 19 cups, 1 1/4 gals.					



OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY

February 8th, 2016

Dear Mr. and Mrs.



The Oklahoma Department of Environmental Quality (DEQ) sampled water from your house well on December 18th, 2015 as part of a reoccurring sampling event that will be performed approximately every six months. DEQ has offered this sampling to residents that live on, or adjacent to the Wilcox Oil Company Superfund Site. You are receiving this letter because you have provided DEQ permission to enter your property and collect a water sample from your well.

DEQ sampled for four types of contaminants in your private well. Those are: Biological (E.Coli and Total Coliform), Volatile Organic Compounds (VOCs), Semi-Volatile Organic Compounds (SVOCs) and Metals.

The first page of the sampling results is for E. Coli and Total Coliform Bacteria E Coli and Total Coliform were not detected in your well as indicated by the "<" symbol in the Results column

The second of the sampling results is for VOCs. VOCs were <u>not</u> detected in your well as indicated by the "<" in the Results column.

Pages 3 through 5 of the sampling results are for SVOCs SVOCs were <u>not</u> detected in your well as indicated by the "<" symbol in the Qualifier column.

The last page of the sampling results is for Metals Several metals were detected (highlighted) at low concentrations, which is considered normal levels and are not considered to be a health risk

If you have questions about this letter or the sampling data, do not hesitate to call me at (405) 702-5136. Please contact Katrina Higgins Coltrain with the U.S. Environmental Protection Agency at (214) 665-8143 with any questions about the EPA Superfund process or plans for the Wilcox Site.

Sincerely,

Todd Downham

Project Manager, Wilcox Oil Company Superfund Site

Land Protection Division

Oklahoma Department of Environmental Quality

c. Katrina Higgins Coltrain, U.S. EPA Dallas



State Environmental Laboratory Services Division EPA DRINKING WATER CERTIFICATION #0K00013

General Inquiries: 1-866-412-3057

SAMPLE INFORMATION

Sample Number:

066587.007

Collected By: TD

Collected:

12/8/15 11:25 am

Received:

12/8/15 4:09 pm

TEST RESULTS

Analysis:

Description:

Total Coliforms

Analysis Method:

SM 9223B

		3) (5)30				
Component Name	Result	Unit	Qualifiers	Analyst	Analysis Date	
E. Coli	<1.0	MPN/100 mL		BCD	12/9/15	
Total Coliform	<1.0	MPN/100 mL		BCD	12/9/15	



State Environmental Laboratory Services Division EPA DRINKING WATER CERTIFICATION #OK00013

General Inquiries: 1-866-412-3057

SAMPLE INFORMATION

Sample Number:

066587.008

Collected By: TD

Description:

Collected: 12/8/15 11:25 am

Received:

12/8/15 4:09 pm

TEST RESULTS

Analysis:

Volatile Organic Compounds

Analysis Method:

EPA 524.3

Component Name	Result	Unit	Qualifiers	Analyst	Analysis Date
1,1,1-Trichloroethane	<0.5	μg/L		SAR	12/9/15
1,1,2-Trichloroethane	<0.5	μg/L		SAR	12/9/15
1,1-Dichloroethene	<0.5	µg/L		SAR	12/9/15
1,2,4-Trichlorobenzene	<0.5	μg/L		SAR	12/9/15
1,2-Dichlorobenzene	<0.5	µg/L		SAR	12/9/15
1,2-Dichloroethane	< 0.5	µg/L		SAR	12/9/15
1,2-Dichloropropane	<0.5	µg/L		SAR	12/9/15
1,4-Dichlorobenzene	<0.5	μg/L		SAR	12/9/15
Benzene	<0.5	μg/L		SAR	12/9/15
Carbon Tetrachloride	<0.5	μg/L		SAR	12/9/15
Chlorobenzene	<0.5	µg/L		SAR	12/9/15
cis-1,2-Dichloroethene	<0.5	μg/L		SAR	12/9/15
Ethylbenzene	<0.5	μg/L		SAR	12/9/15
Methyl tert-Butyl Ether (MtBE)	<0.5	µg/L		SAR	12/9/15
Methylene Chloride	<0.5	μg/L		SAR	12/9/15
Styrene	<0.5	µg/L		SAR	12/9/15
Tetrachloroethene	<0.5	µg/L		SAR	12/9/15
Toluene	<0.5	µg/L		SAR	12/9/15
trans-1,2-Dichloroethene	<0.5	µg/L		SAR	12/9/15
Trichloroethene	<0.5	µg/L		SAR	12/9/15
Vinyl Chloride	<0.5	µg/L		SAR	12/9/15
Xylenes	<0.5	µg/L		SAR	12/9/15

Sample Number: 547552
Project Code: SW-WE
Agency Number: 1195
Date Collected: 12/8/2015
Time Collected: 1125

Date Received: 12/8/2015
Date Completed: 12/15/2015

Collected By: TD

PWS Id:

Location Code:

Station: Facility:

Report Date: 12/15/2015

To: TODD DOWNHAM/LPD

OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY STATE ENVIRONMENTAL LABORATORY

707 N. ROBINSON OKLAHOMA CITY OKLAHOMA, 73102-6010

General Inquiries: 1-866-412-3057 or selsd@deq.ok.gov

Report of Analysis by GCMS

EPA Or hking Water Cortification #0K00813

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Name	Qualifier	Value	Units	Analyzed	Method	Prep Type
Dilution Factor, Extractab		1.00		12/14/15		
Acenaphthylene	<	20.0	UG/L	12/14/15	8270DM	
Acenaphthene	<	20.0	UG/L	12/14/15	8270DM	
Anthracene	<	20.0	UG/L	12/14/15	8270DM	
Benzo(b) fluoranthene	<	20.0	UG/L	12/14/15	8270DM	
Benzo(k)fluoranthene	<	20.0	UG/L	12/14/15	8270DM	
Benzo(a)pyrene	<	20.0	UG/L	12/14/15	8270DM	
Bis(2-chloroethyl)ether	<	20.0	UG/L	12/14/15	8270DM	
Bis(2-chloroethoxy)methane	<	20.0	UG/L	12/14/15	8270DM	
Bis(2-chloroisopropyl)ether	<	20.0	UG/L	12/14/15	8270DM	
Butylbenzylphthalate	<	20.0	UG/L	12/14/15	8270DM	
Chrysene	<	20.0	UG/L	12/14/15	8270DM	
Diethylphthalate	<	20.0	UG/L	12/14/15	8270DM	
Dimethylphthalate	<	20.0	UG/L	12/14/15	8270DM	
Fluoranthene	<	20.0	UG/L	12/14/15	8270DM	
Fluorene	<	20.0	UG/L	12/14/15	8270DN	
Hexachlorocyclopentadiene	<	20.0	UG/L	12/14/15	8270DM	
Hexachloroethane in water	<	20.0	UG/L	12/14/15	8270DM	
Indeno(123cd)pyrene	<	20.0	UG/L	12/14/15	8270DM	
Isophorone	<	20.0	UG/L	12/14/15	8270DM	
Nitrosodipropylamine	<	20.0	UG/L	12/14/15	8270DM	
Nitrosodiphenylamine	<	20.0	UG/L	12/14/15	8270DM	
Nitrobenzene	<	20.0	UG/L	12/14/15	8270DM	
o-Chloro-m-cresol	<	20.0	UG/L	12/14/15	8270DM	
Phenanthrene	<	20.0	UG/L	12/14/15	8270DM	
Pyrene	<	20.0	UG/L	12/14/15	8270DM	
Benzo(ghi)perylene	<	20.0	UG/L	12/14/15	8270DM	
Benzo(a)anthracene	<	20.0	UG/L	12/14/15	8270DM	
.,2,4-Trichlorobenzene	<	20.0	UG/L	12/14/15	8270DM	
Dibenzo(ah)anthracene	<	20.0	UG/L	12/14/15	8270DM	
.,4-Dichlorobenzene	<	20.0	UG/L	12/14/15	8270DM	
-Chloronaphthalene	<	20.0	UG/L	12/14/15	8270DM	
-Chlorophenol	<	20.0	UG/L	12/14/15	8270DM	

Sample Number: 547552
Project Code: SW-WE
Agency Number: 1195
Date Collected: 12/8/2015

Time Collected: 12/8/2015
Date Received: 12/8/2015

Date Received: 12/8/2015
Date Completed: 12/15/2015

Collected By: TD

PWS Id:

Location Code:

Station: Facility:

Report Date: 12/15/2015

To: TODD DOWNHAM/LPD

OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY

STATE ENVIRONMENTAL LABORATORY

707 N. ROBINSON OKLAHOMA CITY OKLAHOMA, 73102-6010

General Inquiries: 1-866-412-3057 or selsd@deq.ok.gov

Report of Analysis by GCMS

EPA Drinking Water Carbfication #OK00013

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Name	Qualifier	Value	Units	Analyzed	Method	Prep Type
2-Nitrophenol	<	20.0	UG/L	12/14/15	8270DM	
Di-n-octylphthalate	<	20.0	UG/L	12/14/15	8270DM	
2,4-Dichlorophenol	<	20.0	UG/L	12/14/15	8270DM	
2,4-Dimethylphenol	<	20.0	UG/L	12/14/15	8270DM	
2,4-Dinitrotoluene	<	20.0	UG/L	12/14/15	8270DM	
2,4-Dinitrophenol	<	50.0	UG/L	12/14/15	8270DM	
2,4,6-Trichlorophenol	<	20.0	UG/L	12/14/15	8270DM	
2,6-Dinitrotoluene	<	20.0	UG/L	12/14/15	8270DM	
3,3'-Dichlorobenzidine	<	20.0	UG/L	12/14/15	8270DM	
4-Bromophenylphenyl ether	5	20.0	UG/L	12/14/15	8270DM	
4-Chlorophenyl phenylether	<	20.0	.UG/L	12/14/15	8270DM	
4-Nitrophenol	<	50.0	UG/L	12/14/15	8270DM	
4,6-Dinitro-o-cresol	<	50.0	UG/L	12/14/15	8270DM	
Phenol	<	20.0	UG/L	12/14/15	8270DM	
Naphthalene	<	20.0	UG/L	12/14/15	8270DM	
Pentachlorophenol	<	50.0	UG/L	12/14/15	8270DM	
Bis(2-ethylhexyl)phthalate	<	20.0	UG/L	12/14/15	8270DM	
Di-n-butylphthalate	4	20.0	UG/L	12/14/15	8270DM	
Hexachlorobenzene	<	20.0	UG/L	12/14/15	8270DM	
Hexachlorobutadiene	<	20.0	UG/L	12/14/15	8270DM	
Dibenzofuran	<	20.0	UG/L	12/14/15	8270DM	
2-Methylnaphthalene	<	20.0	UG/L	12/14/15	8270DM	
2-Methylphenol	<	20.0	UG/L	12/14/15	8270DM	
4-Methylphenol	€	20.0	UG/L	12/14/15	8270DM	
2,4,5-Trichlorophenol	<	20.0	UG/L	12/14/15	8270DM	
4-Chloroaniline	<	20.0	UG/L	12/14/15	8270DM	
2-Nitroaniline	<	50.0	UG/L	12/14/15	8270DM	
3-Nitroaniline	<	50.0	UG/L	12/14/15	8270DM	
4-Nitroaniline	<	50.0	UG/L	12/14/15	8270DM	

COMPOUND SURROGATE RECOVERIES RECOVERY %

NITROBENZENE-D5

2-FLUOROPHENOL

76

38

Sample Number: 547552 Project Code: Agency Number: 1195

Date Collected: 12/8/2015

Time Collected: 1125

Date Received: 12/8/2015 Date Completed: 12/15/2015

Collected By:

PWS Id:

Location Code:

Station: Facility:

Report Date: 12/15/2015

To: TODD DOWNHAM/LPD

OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY

STATE ENVIRONMENTAL LABORATORY

707 N. ROBINSON **OKLAHOMA CITY** OKLAHOMA, 73102-6010

General Inquiries: 1-866-412-3057

or selsd@deq.ok.gov

Report of Analysis by GCMS

EFA Drinking Water Cartification #OK00013

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COMPOUND	SURROGATE RECOVERIES	RECOVERY %	
PHENOL-D5		24	· · · · · · · · · · · · · · · · · · ·
P-TERPHENYL-D14		92	
2,4,6-TRIBROMOPHENOL		98	
2-FLUOROBIPHENYL		80	

	TENTATIVELY	IDENTIFIED BY		
COMPOUND	NBS LIBRARY	SEARCH	VALUE	UNITS
\				

NU

Summary

Labs performing analysis on this Sample:

Metals

GCMS

SOURCE: WILCOX

COUNTY:

CITY:

SAMPLERS COMMENTS:

WR-4; (0) (6) ; LW PROJECT ID DEQ-066587

SAMPLE RECEIVING COMMENTS:

ICE; SAMPLE TEMP = 0.8 C

ANALYST'S COMMENTS:

Heather Rhoads (8270DM), (NU) No TICs (tentatively identified compounds) were detected above the lower limit of quantitation for this analysis.

Sample Number: 547552 Project Code: SW-WE Agency Number: 1195 Date Collected: 12/8/2015

Time Collected: 1125

Date Received: 12/8/2015 Date Completed: 12/17/2015

Collected By:

PWS Id:

Location Code:

Station: Facility:

Report Date: 12/17/2015

To: TODD DOWNHAM/LPD

OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY

STATE ENVIRONMENTAL LABORATORY

707 N. ROBINSON OKLAHOMA CITY OKLAHOMA, 73102-6010

General Inquiries: 1-866-412-3057 or selsd@deq.ok.gov

Report of Analysis by Metals

EPA Drinking Water Certification #OK00013

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Name	Qualifier	Value	Units	Analyzed	Method	Prep Type
Arsenic, Total	<	2.00	UG/L	12/11/15	200.8	
Barium, Total		19.8	UG/L	12/11/15	200.8	
Beryllium, Total	<	2.00	UG/L	12/11/15	200.8	
Cadmium, Total	<	2.00	UG/L	12/11/15	200.8	
Chromium, Total	<	5.00	UG/L	12/11/15	200.8	
Copper, Total		9.80	UG/L	12/11/15	200.8	
Lead, Total	<	5.00	UG/L	12/11/15	200.8	
Thallium, Total	<	1.00	UG/L	12/11/15	200.8	
Nickel, Total	<	10.0	UG/L	12/11/15	200.8	
Silver, Total	<	10.0	UG/L	12/11/15	200.8	
Zinc, Total		10.3	UG/L	12/11/15	200.8	
Antimony, Total	<	2.00	UG/L	12/11/15	200.8	
Selenium, Total	<	10.0	UG/L	12/11/15	200.8	
Mercury, Total	<	0.05	UG/L	12/17/15	200.8	

Summary

Labs performing analysis on this Sample:

Metals

GCMS

SOURCE: WILCOX

COUNTY:

CITY:

SAMPLERS COMMENTS:

LW PROJECT ID DEQ-066587

SAMPLE RECEIVING COMMENTS: ICE; SAMPLE TEMP = 0.8 C

ANALYST'S COMMENTS:

* ANALYST

State Environmental Laboratory

MARY FALLIN GOVERNOR

OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY

February 8th, 2016



Dear Mr. and Mrs. (b) (6)

The Oklahoma Department of Environmental Quality (DEQ) sampled water from your house well on December 18th, 2015 as part of a reoccurring sampling event that will be performed approximately every six months. DEQ has offered this sampling to residents that live on, or adjacent to the Wilcox Oil Company Superfund Site. You are receiving this letter because you have provided DEQ permission to enter your property and collect a water sample from your well.

DEQ sampled for four types of contaminants in your private well. Those are: Biological (E Coli and Total Coliform), Volatile Organic Compounds (VOCs), Semi-Volatile Organic Compounds (SVOCs) and Metals.

The first page of the sampling results is for E. Coli and Total Coliform Bacteria. E. Coli and Total Coliform were not detected in your well as indicated by the "<" symbol in the Results column.

The second of the sampling results is for VOCs VOCs were <u>not</u> detected in your well as indicated by the "<" in the Results column.

Pages 3 through 5 of the sampling results are for SVOCs. SVOCs were <u>not</u> detected in your well as indicated by the "<" symbol in the Qualifier column.

The last page of the sampling results is for Metals. Several metals were detected (highlighted) at low concentrations, which is considered normal levels and are not considered to be a health risk.

If you have questions about this letter or the sampling data, do not hesitate to call me at (405) 702-5136. Please contact Katrina Higgins Coltrain with the U.S. Environmental Protection Agency at (214) 665-8143 with any questions about the EPA Superfund process or plans for the Wilcox Site.

Sincerely,

Todd Downham

Project Manager, Wilcox Oil Company Superfund Site

Land Protection Division

Oklahoma Department of Environmental Quality

c. Katrina Higgins Coltrain, U.S. EPA Dallas



State Environmental Laboratory Services Division

EPA DRINKING WATER CERTIFICATION #OK00013

General Inquiries: 1-866-412-3057

SAMPLE INFORMATION

Sample Number:

066587.009

Description:

(b) (6)

Collected By: TD

Collected:

12/8/15 11:47 am

Received:

12/8/15 4:09 pm

TEST RESULTS

Analysis:

Total Coliforms

Analysis Method:

SM 9223B

Component Name	Result	Unit	Qualifiers	Analyst	Analysis Date	
E. Coli	<1.0	MPN/100 mL		BCD	12/9/15	
Total Coliform	<1.0	MPN/100 mL		BCD	12/9/15	



State Environmental Laboratory Services Division EPA DRINKING WATER CERTIFICATION #0K00013

General Inquiries: 1-866-412-3057

SAMPLE INFORMATION

Sample Number: 066587.010 Collected By: TD

Description:

Collected:

12/8/15 11:47 am

Received:

12/8/15 4:09 pm

TEST RESULTS

Volatile Organic Compounds Analysis: **Analysis Method:** EPA 524.3

Component Name	Result	Unit	Qualifiers	Analyst /	Analysis Date
1,1,1-Trichloroethane	0.5	μg/L		SAR	12/9/15
1,1,2-Trichloroethane	0.5	µg/L		SAR	12/9/15
1,1-Dichloroethene <	:0.5	µg/L		SAR	12/9/15
1,2,4-Trichlorobenzene <	0.5	µg/L		SAR	12/9/15
1,2-Dichlorobenzene <	:0.5	µg/L		SAR	12/9/15
1,2-Dichloroethane <	:0.5	µg/L		SAR	12/9/15
1,2-Dichloropropane <	:0.5	μg/L		SAR	12/9/15
1,4-Dichlorobenzene <	:0.5	µg/L		SAR	12/9/15
Benzene <	:0.5	μg/L		SAR	12/9/15
Carbon Tetrachloride <	0.5	µg/L		SAR	12/9/15
Chlorobenzene <	0.5	µg/L		SAR	12/9/15
cis-1,2-Dichloroethene <	0.5	μg/L		SAR	12/9/15
Ethylbenzene <	0.5	μg/L		SAR	12/9/15
Methyl tert-Butyl Ether (MtBE) <	0.5	µg/L		SAR	12/9/15
Methylene Chloride <	0.5	µg/L		SAR	12/9/15
Styrene <	0.5	µg/L		SAR	12/9/15
Tetrachloroethene <	0.5	µg/L		SAR	12/9/15
Toluene <	0.5	µg/L		SAR	12/9/15
trans-1,2-Dichloroethene <	0.5	µg/L		SAR	12/9/15
Trichloroethene <	0.5	µg/L		SAR	12/9/15
Vinyl Chloride <	0.5	µg/L		SAR	12/9/15
Xylenes <	0.5	µg/L		SAR	12/9/15

Sample Number: 547553
Project Code: SW-WE
Agency Number: 1195
Date Collected: 12/8/2015
Time Collected: 1147

Date Received: 12/8/2015
Date Completed: 12/15/2015

Collected By: TI

PWS Id:

Location Code:

Station: Facility:

Report Date: 1/21/2016

To: TODD DOWNHAM/LPD

OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY

STATE ENVIRONMENTAL LABORATORY
707 N. ROBINSON

OKLAHOMA CITY OKLAHOMA, 73102-6010

General Inquiries: 1-866-412-3057 or selsd@deq.ok.gov

Report of Analysis by GCMS

EPA Drinking Water Certification #OK00013

CC: FILE COPY

Name	Qualifier	Value	Units	Analyzeď	Method	Prep Type
Dilution Factor, Extractab		1.00	······································	12/14/15		
Acenaphthylene	<	20.0	UG/L	12/14/15	8270DM	
Acenaphthene	<	20.0	UG/L	12/14/15	8270DM	
Anthracene	<	20.0	UG/L	12/14/15	8270DM	
Benzo(b) fluoranthene	<	20.0	UG/L	12/14/15	8270DM	
Benzo(k)fluoranthene	<	20.0	UG/L	12/14/15	8270DM	
Benzo(a)pyrene	<	20.0	UG/L	12/14/15	8270DM	
Bis(2-chloroethyl)ether	<	20.0	UG/L	12/14/15	8270DM	
Bis(2-chloroethoxy)methane	<	20.0	UG/L	12/14/15	8270DM	
Bis(2-chloroisopropyl)ether	<	20.0	UG/L	12/14/15	8270DM	
Butylbenzylphthalate	<	20.0	UG/L	12/14/15	8270DM	
Chrysene	<	20.0	UG/L	12/14/15	8270DM	
Diethylphthalate	<	20.0	UG/L	12/14/15	8270DM	
Dimethylphthalate	<	20.0	UG/L	12/14/15	8270DM	
Fluoranthene	<	20.0	UG/L	12/14/15	8270DM	
Fluorene	<	20.0	UG/L	12/14/15	8270DM	
Hexachlorocyclopentadiene	<	20.0	UG/L	12/14/15	8270DM	
Hexachloroethane in water	<	20.0	UG/L	12/14/15	8270DM	
Indeno(123cd)pyrene	<	20.0	UG/L	12/14/15	8270DM	
Isophorone	<	20.0	UG/L	12/14/15	8270DM	
Nitrosodipropylamine	<	20.0	UG/L	12/14/15	8270DM	
Nitrosodiphenylamine	<	20.0	UG/L	12/14/15	8270DM	
Nitrobenzene	<	20.0	UG/L	12/14/15	8270DM	
p-Chloro-m-cresol	<	20.0	UG/L	12/14/15	8270DM	
Phenanthrene	<	20.0	UG/L	12/14/15	8270DM	
Pyrene	<	20.0	UG/L	12/14/15	8270DM	
Benzo(ghi)perylene	<	20.0	UG/L	12/14/15	8270DM	
Benzo(a) anthracene	<	20.0	UG/L	12/14/15	8270DM	
1,2,4-Trichlorobenzene	<	20.0	UG/L	12/14/15	8270DM	
Dibenzo(ah)anthracene	<	20.0	UG/L	12/14/15	8270DM	
l,4-Dichlorobenzene	<	20.0	UG/L	12/14/15	8270DM	
2-Chloronaphthalene	<	20.0	UG/L	12/14/15	8270DM	
2-Chlorophenol	<	20.0	UG/L	12/14/15	8270DM	

Sample Number: 547553 Project Code: SW-WE Agency Number: 1195

Date Collected: 12/8/2015 Time Collected: 1147

Date Received: 12/8/2015 Date Completed: 12/15/2015

Collected By: TD

PWS Id:

Location Code:

Station: Facility:

Report Date: 1/21/2016

To: TODD DOWNHAM/LPD

OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY

STATE ENVIRONMENTAL LABORATORY

707 N. ROBINSON **OKLAHOMA CITY** OKLAHOMA, 73102-6010 General Inquiries: 1-866-412-3057

or selsd@deq.ok.gov

Report of Analysis by GCMS

EPA Drinking Water Certification #OK00013

CC: FILE COPY

Name	Qualifier	Value	Units	Analyzed	Method	Prep Type
2-Nitrophenol	<	20.0	UG/L	12/14/15	8270DM	
Di-n-octylphthalate	<	20.0	UG/L	12/14/15	8270DM	
2,4-Dichlorophenol	<	20.0	UG/L	12/14/15	8270DM	
2,4-Dimethylphenol	<	20.0	UG/L	12/14/15	8270DM	
2,4-Dinitrotoluene	<	20.0	UG/L	12/14/15	8270DM	
2,4-Dinitrophenol	<	50.0	UG/L	12/14/15	8270DM	
2,4,6-Trichlorophenol	<	20.0	UG/Ļ	12/14/15	8270DM	
2,6-Dinitrotoluene	<	20.0	UG/L	12/14/15	8270DM	
3,3'-Dichlorobenzidine	<	20.0	UG/L	12/14/15	8270DM	
4-Bromophenylphenyl ether	<	20.0	UG/L	12/14/15	8270DM	
4-Chlorophenyl phenylether	<	20.0	UG/L	12/14/15	8270DM	
4-Nitrophenol	<	50.0	UG/L	12/14/15	8270DM	
4,6-Dinitro-o-cresol	<	50.0	UG/L	12/14/15	8270DM	
Phenol	<	20.0	UG/L	12/14/15	8270DM	
Naphthalene	<	20.0	UG/L	12/14/15	8270DM	
Pentachlorophenol	15	50.0	UG/L	12/14/15	8270DM	
Bis(2-ethylhexyl)phthalate	V	20.0	UG/L	12/14/15	8270DM	
Di-n-butylphthalate	<	20.0	UG/L	12/14/15	8270DM	
Hexachlorobenzene	<	20.0	UG/L	12/14/15	8270DM	
Hexachlorobutadiene	<	20.0	UG/L	12/14/15	8270DM	
Dibenzofuran	<	20.0	UG/L	12/14/15	8270DM	
2-Methylnaphthalene	<	20.0	UG/L	12/14/15	8270DM	
2-Methylphenol	<	20.0	UG/L	12/14/15	8270DM	
4-Methylphenol	V	20.0	UG/L	12/14/15	8270DM	
2,4,5-Trichlorophenol	*	20.0	UG/L	12/14/15	8270DM	
4-Chloroaniline	<	20.0	UG/L	12/14/15	8270DM	
2-Nitroaniline	<	50.0	UG/L	12/14/15	8270DM	
3-Nitroaniline	<	50.0	UG/L	12/14/15	8270DM	
4-Nitroaniline	<	50.0	UG/L	12/14/15	8270DM	

	SURROGATE RECOV	ERIES	
COMPOUND		RECOVERY %	

²⁻FLUOROBIPHENYL

P-TERPHENYL-D14

Sample Number: 547553 Project Code: SW-WE Agency Number: 1195 Date Collected: 12/8/2015

Time Collected: 1147

Date Received: 12/8/2015 Date Completed: 12/15/2015

Collected By:

PWS Id:

Location Code:

Station: Facility:

Report Date: 1/21/2016

To: TODD DOWNHAM/LPD

OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY

STATE ENVIRONMENTAL LABORATORY

707 N. ROBINSON OKLAHOMA CITY OKLAHOMA, 73102-6010 General Inquiries: 1-866-412-3057

or selsd@deq.ok.gov

Report of Analysis by GCMS

EPA Drinking Water Certification #OK00013

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COMPOUND	SURROGATE RECOVERIES	RECOVERY %	
2-FLUOROPHENOL		36	
NITROBENZENE-D5		75	
2,4,6-TRIBROMOPHENOL		98	
PHENOL-D5		24	

	TENTATIVELY	IDENTIFIED BY		
COMPOUND	NBS LIBRARY	SEARCH	VALUE	UNITS

Summary

Labs performing analysis on this Sample:

Metals

GCMS

SOURCE:

WILCOX

COUNTY:

CITY:

SAMPLERS COMMENTS:

WR-5; (0) (6) ; LW PROJECT ID DEQ-066587

SAMPLE RECEIVING COMMENTS:

ICE; SAMPLE TEMP = 5.2 C

ANALYST'S COMMENTS:

Heather Rhoads (8270DM), (TE1) Sample received on ice during cooling down phase. Analyzed. (NU) No TICs (tentatively identified compounds) were detected above the lower limit of

quantitation for this analysis.

* ANALYST Halter Khouse

Sample Number: 547553 Project Code: SW-WE Agency Number: 1195 Date Collected: 12/8/2015

Time Collected: 1147

Date Received: 12/8/2015 Date Completed: 12/17/2015

Collected By:

PWS Id:

Location Code:

Station: Facility:

Report Date: 12/17/2015

To: TODD DOWNHAM/LPD

OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY

STATE ENVIRONMENTAL LABORATORY

707 N. ROBINSON **OKLAHOMA CITY** OKLAHOMA, 73102-6010

General Inquiries: 1-866-412-3057

or selsd@deq.ok.gov

Report of Analysis by Metals

EPA Drinking Water Certification #OK00013

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Name	Qualifier	Value	Units	Analyzed	Method	Prep Type
Arsenic, Total	<	2.00	UG/L	12/11/15	200.8	
Barium, Total		54.2	UG/L	12/11/15	200.8	
Beryllium, Total	<	2.00	UG/L	12/11/15	200.8	
Cadmium, Total	<	2.00	UG/L	12/11/15	200.8	
Chromium, Total		5.20	UG/L	12/11/15	200.8	
Copper, Total		8.40	UG/L	12/11/15	200.8	
Lead, Total	<	5.00	UG/L	12/11/15	200.8	
Thallium, Total	<	1.00	UG/L	12/11/15	200.8	
Nickel, Total	<	10.0	UG/L	12/11/15	200.8	
Silver, Total	<	10.0	UG/L	12/11/15	200.8	
Zinc, Total	<	10.0	UG/L	12/11/15	200.8	
Antimony, Total	<	2.00	UG/L	12/11/15	200.8	
Selenium, Total	<	10.0	UG/L	12/11/15	200.8	
Mercury, Total	<	0.05	UG/L	12/17/15	200.8	

Summary

Labs performing analysis on this Sample:

Metals

GCMS

SOURCE: WILCOX

COUNTY:

CITY:

SAMPLERS COMMENTS:

WR-5;

LW PROJECT ID DEQ-066587

SAMPLE RECEIVING COMMENTS: ICE; SAMPLE TEMP = 5.2 C

ANALYST'S COMMENTS:

* ANALYST

Goode

State Environmental Laboratory

Daga 1 of 1

OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY

February 8th, 2016



Dear Ms. (b) (6)

The Oklahoma Department of Environmental Quality (DEQ) sampled water from your house well on December 18th, 2015 as part of a reoccurring sampling event that will be performed approximately every six months. DEQ has offered this sampling to residents that live on, or adjacent to the Wilcox Oil Company Superfund Site. You are receiving this letter because you have provided DEQ permission to enter your property and collect a water sample from your well

DEQ sampled for four types of contaminants in your private well. Those are: Biological (E.Coli and Total Coliform), Volatile Organic Compounds (VOCs), Semi-Volatile Organic Compounds (SVOCs) and Metals.

The first page of the sampling results is for E. Coli and Total Coliform Bacteria. E. Coli and Total Coliform were <u>not</u> detected in your well as indicated by the "<" symbol in the Results column.

The second of the sampling results is for VOCs VOCs were <u>not</u> detected in your well as indicated by the "<" in the Results column.

Pages 3 through 5 of the sampling results are for SVOCs. SVOCs were <u>not</u> detected in your well as indicated by the "<" symbol in the Qualifier column.

The last page of the sampling results is for Metals. Several metals were detected (highlighted) at low concentrations, which is considered normal levels and are not considered to be a health risk.

If you have questions about this letter or the sampling data, do not hesitate to call me at (405) 702-5136. Please contact Katrina Higgins Coltrain with the U.S. Environmental Protection Agency at (214) 665-8143 with any questions about the EPA Superfund process or plans for the Wilcox Site.

Sincerely,

Todd Downham

Project Manager, Wilcox Oil Company Superfund Site

Land Protection Division

Oklahoma Department of Environmental Quality

c. Katrina Higgins Coltrain, U.S. EPA Dallas



State Environmental Laboratory Services Division

EPA DRINKING WATER CERTIFICATION #OK00013

General Inquiries: 1-866-412-3057

SAMPLE INFORMATION

Sample Number:

066587.011

Collected By: TD

Description:

b) (6)

Collected:

12/8/15 12:15 pm

Received:

12/8/15 4:09 pm

TEST RESULTS

Analysis:

Total Coliforms

Analysis Method:

SM 9223B

Component Name	Result	Unit	Qualifiers	Analyst	Analysis Date
E. Coli	<1.0	MPN/100 mL		BCD	12/9/15
Total Coliform	<1.0	MPN/100 mL		BCD	12/9/15



State Environmental Laboratory Services Division

EPA DRINKING WATER CERTIFICATION #OK00013

General Inquiries: 1-866-412-3057

SAMPLE INFORMATION

Sample Number:

066587.012

Collected By: TD

Description:

12/8/15 12:15 pm Collected:

Received:

12/8/15 4:09 pm

TEST RESULTS

Analysis:

Volatile Organic Compounds

Analysis Method:

EPA 524.3

Component Name	Result	Unit	Qualifiers	Analyst	Analysis Date
1,1,1-Trichloroethane	<0.5	µg/L		SAR	12/9/15
1,1,2-Trichloroethane	<0.5	μg/L		SAR	12/9/15
1,1-Dichloroethene	<0.5	µg/L		SAR	12/9/15
1,2,4-Trichlorobenzene	<0.5	µg/L		SAR	12/9/15
1,2-Dichlorobenzene	<0.5	µg/L		SAR	12/9/15
1,2-Dichloroethane	<0.5	µg/L		SAR	12/9/15
1,2-Dichloropropane	<0.5	µg/L		SAR	12/9/15
1,4-Dichlorobenzene	<0.5	µg/L		SAR	12/9/15
Benzene	<0.5	μg/L		SAR	12/9/15
Carbon Tetrachloride	<0.5	μg/L		SAR	12/9/15
Chlorobenzene	<0.5	µg/L		SAR	12/9/15
cis-1,2-Dichloroethene	<0.5	µg/L		SAR	12/9/15
Ethylbenzene	<0.5	μg/L		SAR	12/9/15
Methyl tert-Butyl Ether (MtBE)	<0.5	µg/L		SAR	12/9/15
Methylene Chloride	<0.5	µg/L		SAR	12/9/15
Styrene	<0.5	µg/L		SAR	12/9/15
Tetrachloroethene	<0.5	µg/L		SAR	12/9/15
Toluene	<0.5	µg/L		SAR	12/9/15
rans-1,2-Dichloroethene	<0.5	µg/L		SAR	12/9/15
richloroethene richloroethene	<0.5	μg/L		SAR	12/9/15
/inyl Chloride	<0.5	µg/L		SAR	12/9/15
(ylenes	<0.5	µg/L		SAR	12/9/15

Sample Number: 547554
Project Code: SW-WE
Agency Number: 1195
Date Collected: 12/8/2015
Time Collected: 1215

Date Received: 12/8/2015
Date Completed: 12/15/2015

Collected By: TD

PWS Id:

Location Code:

Station: Facility:

Report Date: 12/15/2015

To: TODD DOWNHAM/LPD

OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY

STATE ENVIRONMENTAL LABORATORY

707 N. ROBINSON OKLAHOMA CITY OKLAHOMA, 73102-6010

General Inquiries: 1-866-412-3057 or selsd@deq.ok.gov

Report of Analysis by GCMS

EPA Origing Water Certification #OK00013

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Name	Qualifier	Value	Units	Analyzed	Method	Prep Type
Dilution Factor, Extractab		1.00		12/14/15		
Acenaphthylene	<	20.0	UG/L	12/14/15	8270DM	
Acenaphthene	<	20.0	UG/L	12/14/15	8270DM	
Anthracene	<	20.0	UG/L	12/14/15	8270DM	
Benzo(b) fluoranthene	<	20.0	UG/L	12/14/15	8270DM	
Benzo(k)fluoranthene	<	20.0	UG/L	12/14/15	8270DM	
Benzo(a)pyrene	<	20.0	UG/L	12/14/15	8270DM	
Bis(2-chloroethyl)ether	<	20.0	UG/L	12/14/15	8270DM	
Bis(2-chloroethoxy)methane	<	20.0	UG/L	12/14/15	8270DM	
Bis(2-chloroisopropyl)ether	<	20.0	UG/L	12/14/15	8270DM	
Butylbenzylphthalate	<	20.0	UG/L	12/14/15	8270DM	
Chrysene	<	20.0	UG/L	12/14/15	8270DM	
Diethylphthalate	<	20.0	UG/L	12/14/15	8270DM	
Dimethylphthalate	<	20.0	UG/L	12/14/15	8270DM	
Fluoranthene	<	20.0	UG/L	12/14/15	8270DM	
Fluorene	<	20.0	UG/L	12/14/15	8270DM	
Hexachlorocyclopentadiene	<	20.0	UG/L	12/14/15	8270DM	
Hexachloroethane in water	<	20.0	UG/L	12/14/15	8270DM	
Indeno(123cd)pyrene	<	20.0	UG/L	12/14/15	8270DM	
Isophorone	<	20,0	UG/L	12/14/15	8270DM	
Nitrosodipropylamine	<	20.0	UG/L	12/14/15	8270DM	
Nitrosodiphenylamine	<	20.0	UG/L	12/14/15	8270DM	
Nitrobenzene	<	20.0	UG/L	12/14/15	8270DM	
p-Chloro-m-cresol	<	20.0	UG/L	12/14/15	8270DM	
Phenanthrene	<	20.0	UG/L	12/14/15	8270DM	
Pyrene	<	20.0	UG/L	12/14/15	8270DM	
Benzo(ghi)perylene	<	20.0	UG/L	12/14/15	8270DM	
Benzo(a) anthracene	<	20.0	UG/L	12/14/15	8270DM	
1,2,4-Trichlorobenzene	<	20.0	UG/L	12/14/15	8270DM	
Dibenzo(ah)anthracene	<	20.0	UG/L	12/14/15	8270DM	
l,4-Dichlorobenzene	<	20.0	UG/L	12/14/15	8270DM	
2-Chloronaphthalene	<	20.0	UG/L	12/14/15	8270DM	
2-Chlorophenol	<	20.0	UG/L	12/14/15	8270DM	

Sample Number: 547554
Project Code: SW-WE
Agency Number: 1195
Date Collected: 12/8/20

Date Collected: 12/8/2015 Time Collected: 1215

Date Received: 12/8/2015
Date Completed: 12/15/2015

Collected By: T

PWS Id:

Location Code:

Station: Facility:

Report Date: 12/15/2015

To: TODD DOWNHAM/LPD

OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY

STATE ENVIRONMENTAL LABORATORY

707 N. ROBINSON OKLAHOMA CITY OKLAHOMA, 73102-6010

General Inquiries: 1-866-412-3057 or selsd@deq.ok.gov

Report of Analysis by GCMS

EPA Drinking Witter Certification #QK00013

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Name	Qualifier	Value	Units	Analyzed	Method	Prep Type
2-Nitrophenol	<	20.0	UG/L	12/14/15	8270DM	
Di-n-octylphthalate	<	20.0	UG/L	12/14/15	8270DM	
2,4-Dichlorophenol	*	20.0	UG/L	12/14/15	8270DM	
2,4-Dimethylphenol	<	20.0	UG/L	12/14/15	8270DM	
2,4-Dinitrotoluene	*	20.0	UG/L	12/14/15	8270DM	
2,4-Dinitrophenol	<	50.0	UG/L	12/14/15	8270DM	
2,4,6-Trichlorophenol	<	20.0	UG/L	12/14/15	3270DM	
2,6-Dinitrotoluene	<	20.0	UG/L	12/14/15	8270DM	
3,3'-Dichlorobenzidine	<	20.0	UG/L	12/14/15	8270DM	
4-Bromophenylphenyl ether	<	20.0	UG/L	12/14/15	8270DM	
4-Chlorophenyl phenylether	<	20.0	UG/L	12/14/15	8270DM	
4-Nitrophenol	×	50.0	UG/L	12/14/15	8270DM	
4,6-Dinitro-o-cresol	<	50.0	UG/L	12/14/15	8270DM	
Phenol	<	20.0	UG/L	12/14/15	8270DM	
Naphthalene	<	20.0	UG/L	12/14/15	8270DM	
Pentachlorophenol	<	50.0	UG/L	12/14/15	8270DM	
Bis(2-ethylhexyl)phthalate	<	20.0	UG/L	12/14/15	8270DM	
Di-n-butylphthalate	<	20.0	UG/L	12/14/15	8270DM	
Hexachlorobenzene	<	20.0	UG/L	12/14/15	8270DM	
Hexachlorobutadiene	<	20.0	UG/L	12/14/15	8270DM	
Dibenzofuran	<	20.0	UG/L	12/14/15	8270DM	
2-Methylnaphthalene	<	20,0	UG/L	12/14/15	8270DM	
2-Methylphenol	5	20.0	UG/L	12/14/15	8270DM	
4-Methylphenol	<	20.0	UG/L	12/14/15	8270DM	
2,4,5-Trichlorophenol	<	20.0	UG/L	12/14/15	8270DM	
4-Chloroaniline	ĸ	20.0	UG/L	12/14/15	8270DM	
2-Nitroaniline	<	50.0	UG/L	12/14/15	8270DM	
3-Nitroaniline	<	50.0	UG/L	12/14/15	8270DM	
4-Nitroaniline	<	50.0	UG/L	12/14/15	8270DM	

COMPOUND	SURROGATE	RECOVERIES	RECOVERY %	
PHENOL-D5			19	

2,4,6-TRIBROMOPHENOL 94

Sample Number: 547554 Project Code: SW-WE Agency Number: 1195

Date Collected: 12/8/2015

Time Collected: 1215

Date Received: 12/8/2015 Date Completed: 12/15/2015

Collected By:

PWS Id:

Location Code:

Station: Facility:

Report Date: 12/15/2015

TO: TODD DOWNHAM/LPD

OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY

STATE ENVIRONMENTAL LABORATORY

707 N. ROBINSON OKLAHOMA CITY OKLAHOMA, 73102-6010 General Inquiries: 1-866-412-3057

or selsd@deq.ok.gov Report of Analysis by GCMS

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COMPOUND	SURROGATE RECOVERIES	RECOVERY %	
2-FLUOROBIPHENYL		72	
2-FLUOROPHENOL		30	
NITROBENZENĘ-D5		67	
P-TERPHENYL-D14		9 0	

TENTATIVELY	IDENTIFIED BY		
NBS LIBRARY	SEARCH	VALUE	UNITS
		TENTATIVELY IDENTIFIED BY NBS LIBRARY SEARCH	

NU

Summary

Labs performing analysis on this Sample:

Metals

GCMS

SOURCE: WILCOX

COUNTY: CITY:

SAMPLERS COMMENTS: WR-6; (6) (6) ; LW PROJECT ID DEQ-066587

SAMPLE RECEIVING COMMENTS:

ICE; SAMPLE TEMP = 2.8 C

ANALYST'S COMMENTS:

Heather Rhoads (8270DM), (NU) No TICs (tentatively identified compounds) were detected above

the lower limit of quantitation for this analysis.

Sample Number: 547554
Project Code: SW-WE
Agency Number: 1195
Date Collected: 12/8/2015

Time Collected: 1215
Date Received: 12/8/2015

Date Completed: 12/17/2015

Collected By: TI

PWS Id:

Location Code:

Station: Facility:

Report Date: 12/17/2015

To: TODD DOWNHAM/LPD

OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY

STATE ENVIRONMENTAL LABORATORY

707 N. ROBINSON OKLAHOMA CITY OKLAHOMA, 73102-6010

General Inquiries: 1-866-412-3057

or selsd@deq.ok.gov

Report of Analysis by Metals

EPA Drinking Water Certification #OK00013

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Name	Qualifier	Value	Units	Analyzed	Method	Prep Type
Arsenic, Total	<	2.00	UG/L	12/11/15	200.8	i i
Barium, Total		42.5	UG/L	12/11/15	200.8	
Beryllium, Total	<	2.00	UG/L	12/11/15	200.8	
Cadmium, Total	<	2.00	UG/L	12/11/15	200.8	
Chromium, Total		5.20	UG/L	12/11/15	200.8	
Copper, Total		8.70	UG/L	12/11/15	200.8	
Lead, Total	<	5.00	UG/L	12/11/15	200.8	
Thallium, Total	<	1.00	UG/L	12/11/15	200.8	
Nickel, Total	<	10.0	UG/L	12/11/15	200.8	
Bilver, Total	<	10.0	UG/L	12/11/15	200.8	
Zinc, Total	<	10.0	UG/L	12/11/15	200.8	
Antimony, Total	<	2.00	UG/L	12/11/15	200.8	
Selenium, Total	<	10.0	UG/L	12/11/15	200.8	
Mercury, Total	<	0.05	UG/L	12/17/15	200.8	

Summary

Labs performing analysis on this Sample:

Metals

GCMS

SOURCE: WILCOX COUNTY: C:

CITY:

SAMPLERS COMMENTS:

WR-6; (0) (6) LW PROJECT ID DEQ-066587

SAMPLE RECEIVING COMMENTS: ICE; SAMPLE TEMP = 2.8 C

ANALYST'S COMMENTS:

* ANALYST

Greg Goode

State Environmental Laboratory

Goode

Dono 4 of 4

OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY

February 8th, 2016



Dear Mr. and Mrs. (b) (6)

The Oklahoma Department of Environmental Quality (DEQ) sampled water from your house well on December 18th, 2015 as part of a reoccurring sampling event that will be performed approximately every six months. DEQ has offered this sampling to residents that live on, or adjacent to the Wilcox Oil Company Superfund Site. You are receiving this letter because you have provided DEQ permission to enter your property and collect a water sample from your well.

DEQ sampled for four types of contaminants in your private well. Those are: Biological (E.Coli and Total Coliform), Volatile Organic Compounds (VOCs), Semi-Volatile Organic Compounds (SVOCs) and Metals.

The first page of the sampling results is for E. Coli and Total Coliform Bacteria. E. Coli and Total Coliform were <u>not</u> detected in your well as indicated by the "<" symbol in the Results column.

The second of the sampling results is for VOCs. VOCs were <u>not</u> detected in your well as indicated by the "<" in the Results column.

Pages 3 through 5 of the sampling results are for SVOCs. SVOCs were <u>not</u> detected in your well as indicated by the "<" symbol in the Qualifier column.

The last page of the sampling results is for Metals. Several metals <u>were</u> detected (highlighted) at low concentrations, which is considered normal levels and are not considered to be a health risk.

If you have questions about this letter or the sampling data, do not hesitate to call me at (405) 702-5136. Please contact Katrina Higgins Coltrain with the U.S. Environmental Protection Agency at (214) 665-8143 with any questions about the EPA Superfund process or plans for the Wilcox Site.

Sincerely,

Todd Downham

Project Manager, Wilcox Oil Company Superfund Site

Land Protection Division

Oklahoma Department of Environmental Quality

c. Katrina Higgins Coltrain, U.S. EPA Dallas



State Environmental Laboratory Services Division EPA DRINKING WATER CERTIFICATION #0K00013

General Inquiries: 1-866-412-3057

SAMPLE INFORMATION

Sample Number:

066587.013

Collected By: TD

Description:

Collected:

12/8/15 12:30 pm

Received:

12/8/15 4:09 pm

TEST RESULTS

Analysis:

Total Coliforms

Analysis Method:

SM 9223B

			52 444	2011	
Result	Unit	Qualifiers	Analyst	Analysis Date	
<1.0	MPN/100 mL	2000	BCD	12/9/15	
<1.0	MPN/100 mL		BCD	12/9/15	
	<1.0	<1.0 MPN/100 mL	<1.0 MPN/100 mL	<1.0 MPN/100 mL BCD	<1.0 MPN/100 mL BCD 12/9/15



State Environmental Laboratory Services Division EPA DRINKING WATER CERTIFICATION #0K00013

General Inquiries: 1-866-412-3057

SAMPLE INFORMATION

Sample Number: 066587.014 Collected By: TD

Description:

12/8/15 12:30 pm Collected:

Received:

12/8/15 4:09 pm

TEST RESULTS

Analysis: Volatile Organic Compounds **Analysis Method:** EPA 524.3

Component Name	Result	Unit	Qualifiers	Analyst	Analysis Date
1,1,1-Trichloroethane	<0.5	μg/L		SAR	12/9/15
1,1,2-Trichloroethane	<0.5	µg/L		SAR	12/9/15
1,1-Dichloroethene	<0.5	μg/L		SAR	12/9/15
1,2,4-Trichlorobenzene	<0.5	μg/L		SAR	12/9/15
1,2-Dichlorobenzene	<0.5	µg/L		SAR	12/9/15
1,2-Dichloroethane	<0.5	μg/L		SAR	12/9/15
1,2-Dichloropropane	<0.5	µg/L		SAR	12/9/15
1,4-Dichlorobenzene	<0.5	µg/L		SAR	12/9/15
Benzene	<0.5	µg/L		SAR	12/9/15
Carbon Tetrachloride	<0.5	µg/L		SAR	12/9/15
Chlorobenzene	<0.5	µg/L		SAR	12/9/15
cis-1,2-Dichloroethene	<0.5	µg/L		SAR	12/9/15
Ethylbenzene	<0.5	µg/L		SAR	12/9/15
Methyl tert-Butyl Ether (MtBE)	<0.5	µg/L		SAR	12/9/15
Methylene Chloride	<0.5	μg/L		SAR	12/9/15
Styrene	<0.5	μg/L		SAR	12/9/15
Tetrachloroethene	<0.5	µg/L		SAR	12/9/15
Toluene	<0.5	µg/L		SAR	12/9/15
trans-1,2-Dichloroethene	<0.5	µg/L		SAR	12/9/15
Trichloroethene	<0.5	μg/L		SAR	12/9/15
Vinyl Chloride	<0.5	μg/L		SAR	12/9/15
Xylenes	<0.5	μg/L		SAR	12/9/15

Sample Number: 547555
Project Code: SW-WE
Agency Number: 1195
Date Collected: 12/8/2015
Time Collected: 1230
Date Received: 12/8/2015

Date Completed: 12/15/2015 Collected By: TD

PWS Id:

Location Code:

Station: Facility:

Report Date: 12/15/2015

To: TODD DOWNHAM/LPD

OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY

STATE ENVIRONMENTAL LABORATORY 707 N. ROBINSON

OKLAHOMA CITY
OKLAHOMA, 73102-6010
General Inquiries: 1-866-412-3057

or selsd@deq.ok.gov

Report of Analysis by GCMS

EPA Drawing Water Certification #OK08013

CC: FILE COPY

Name	Qualifier	Value	Units	Analyzed	Method	Ргер Туре
Dilution Factor, Extractab		1.00		12/14/15		· · · · · · · · · · · · · · · · · · ·
Acenaphthylene	<	20.0	UG/L	12/14/15	8270DM	
Acenaphthene	<	20.0	UG/L	12/14/15	8270DM	
Anthracene	<	20.0	UG/L	12/14/15	8270DM	
Benzo(b)fluoranthene	<	20.0	UG/L	12/14/15	8270DM	
Benzo(k)fluoranthene	<	20.0	UG/L	12/14/15	8270DM	
Benzo(a)pyrene	<	20.0	UG/L	12/14/15	8270DM	
Bis(2-chloroethyl)ether	<	20.0	UG/L	12/14/15	8270DM	
Bis(2-chloroethoxy)methane	<	20.0	UG/L	12/14/15	8270DM	
Bis(2-chloroisopropyl)ether	<	20.0	UG/L	12/14/15	8270DM	
Butylbenzylphthalate	<	20.0	UG/L	12/14/15	8270DM	
Chrysene	<	20.0	UG/L	12/14/15	8270DM	
Diethylphthalate	<	20.0	UG/L	12/14/15	8270DM	
Dimethylphthalate	<	20.0	UG/L	12/14/15	8270DM	
Fluoranthene	<	20.0	UG/L	12/14/15	8270DM	
Fluorene	<	20.0	UG/L	12/14/15	8270DM	
Hexachlorocyclopentadiene	<	20.0	UG/L	12/14/15	8270DM	
Hexachloroethane in water	<	20.0	UG/L	12/14/15	8270DM	
Indeno(123cd)pyrene	<	20.0	UG/L	12/14/15	8270DM	
Isophorone	<	20.0	UG/L	12/14/15	8270DM	
Nitrosodipropylamine	<	20.0	UG/L	12/14/15	8270DM	
Nitrosodiphenylamine	<	20.0	UG/L	12/14/15	8270DM	
Nitrobenzene	<	20.0	UG/L	12/14/15	8270DM	
p-Chloro-m-cresol	<	20.0	UG/L	12/14/15	8270DM	
Phenanthrene	<	20.0	UG/L	12/14/15	8270DM	
Pyrene	<	20.0	UG/L	12/14/15	8270DM	
Benzo(ghi)perylene	<	20.0	UG/L	12/14/15	8270DM	
Benzo(a)anthracene	<	20.0	UG/L	12/14/15	8270DM	
1,2,4-Trichlorobenzene	<	20.0	UG/L	12/14/15	8270DM	
Dibenzo(ah)anthracene	<	20.0	UG/L	12/14/15	8270DM	
1,4-Dichlorobenzene	<	20.0	UG/L	12/14/15	8270DM	
2-Chloronaphthalene	<	20.0	UG/L	12/14/15	8270DM	
2-Chlorophenol	<	20.0	UG/L	12/14/15	8270DM	
Get Committee of the Co						

Sample Number: 547555 Project Code: SW-WE Agency Number: 1195 Date Collected: 12/8/2015

Time Collected: 1230 Date Received: 12/8/2015 Date Completed: 12/15/2015

Collected By: TD

PWS Id:

Location Code:

Station: Facility:

Report Date: 12/15/2015

To: TODD DOWNHAM/LPD

OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY

STATE ENVIRONMENTAL LABORATORY

707 N. ROBINSON OKLAHOMA CITY OKLAHOMA, 73102-6010 General Inquiries: 1-866-412-3057

or selsd@deq.ok.gov

Report of Analysis by GCMS

CPA Drinking Water Contineation #OK00013

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Name	Qualifier	Value	Units	Analyzed	Method	Prep Type
2-Nitrophenol	<	20.0	UG/L	12/14/15	8270DM	
Di-n-octylphthalate	<	20.0	UG/L	12/14/15	8270DM	
2,4-Dichlorophenol	<	20.0	UG/L	12/14/15	8270DM	
2,4-Dimethylphenol	<	20.0	UG/L	12/14/15	8270DM	
2,4-Dinitrotoluene	~	20.0	UG/L	12/14/15	8270DM	
2,4-Dinitrophenol	<	50.0	UG/L	12/14/15	8270DM	
2,4,6-Trichlorophenol	<	20.0	UG/L	12/14/15	8270DM	
2,6-Dinitrotoluene	<	20.0	UG/L	12/14/15	8270DM	
3,3'-Dichlorobenzidine	<	20.0	UG/L	12/14/15	8270DM	
4-Bromophenylphenyl ether	<	20.0	UG/L	12/14/15	8270DM	
4-Chlorophenyl phenylether	<	20.0	UG/L	12/14/15	8270DM	
4-Nitrophenol	<	50.0	UG/L	12/14/15	8270DM	
4,6-Dinitro-o-cresol	<	50.0	UG/L	12/14/15	8270DM	
Phenol	<	20.0	UG/L	12/14/15	8270DM	
Naphthalene	<	20.0	UG/L	12/14/15	8270DM	
Pentachlorophenol	<	50.0	UG/L	12/14/15	8270DM	
Bis(2-ethylhexyl)phthalate	<	20.0	UG/L	12/14/15	8270DM	
Di-n-butylphthalate	≥	20.0	UG/L	12/14/15	8270DM	
Hexachlorobenzene	<	20.0	UG/L	12/14/15	8270DM	
Hexachlorobutadiene	<	20.0	UG/L	12/14/15	8270DM	
Dibenzofuran	<	20.0	UG/L	12/14/15	8270DM	
2-Methylnaphthalene	<	20.0	UG/L	12/14/15	8270DM	
2-Methylphenol	<	20.0	UG/L	12/14/15	8270DM	
4-Methylphenol	<	20.0	UG/L	12/14/15	8270DM	
2,4,5-Trichlorophenol	•	20.0	UG/L	12/14/15	8270DM	
4-Chloroaniline	<	20.0	UG/L	12/14/15	8270DM	
2-Nitroaniline	4	50.0	UG/L	12/14/15	8270DM	
3-Nitroaniline	<	50.0	UG/L	12/14/15	8270DM	
4-Nitroaniline	<	50.0	UG/L	12/14/15	8270DM	

COMPOUND	SURROGATE RECOVERIES	RECOVERY %	
2-FLUOROBIPHENYL		80	

2-FLUOROBIPHENYL

22

PHENOL-D5

Sample Number: 547555 Project Code: SW-WE Agency. Number: 1195 Date Collected: 12/8/2015

Time Collected: 1230

Date Received: 12/8/2015 Date Completed: 12/15/2015

Collected By:

PWS Id:

Location Code:

Station: Facility:

Report Date: 12/15/2015

To: TODD DOWNHAM/LPD

OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY

STATE ENVIRONMENTAL LABORATORY

707 N. ROBINSON OKLAHOMA CITY OKLAHOMA, 73102-6010 General Inquiries: 1-866-412-3057

or selsd@deq.ok.gov

Report of Analysis by GCMS

EPA Drawing Water Cartification #0K00013

CC: FILE COPY

COMPOUND	SURROGATE RECOVERIES	RECOVERY %	
NITROBENZENE-D5		74	
2,4,6-TRIBROMOPHENOL		97	
2-FLUOROPHENOL		36	
P-TERPHENYL-D14		96	

	TENTATIVELY	IDENTIFIED BY	
COMPOUND	NBS LIBRARY	SEARCH	VALUE UNITS

NU

Summary

Labs performing analysis on this Sample:

Metals

GCMS

SOURCE: WILCOX

COUNTY:

CITY:

SAMPLERS COMMENTS:

WR-7; (0) (6) LW PROJECT ID DEQ-066587

SAMPLE RECEIVING COMMENTS:

ICE; SAMPLE TEMP = 2.6 C

ANALYST'S COMMENTS:

Heather Rhoads (8270DM), (NU) No TICs (tentatively identified compounds) were detected above

the lower limit of quantitation for this analysis.

Sample Number: 547555 Project Code: SW-WE Agency Number: 1195 Date Collected: 12/8/2015

Time Collected: 1230 Date Received: 12/8/2015 Date Completed: 12/17/2015

Collected By:

PWS Id:

Location Code:

Station: Facility:

12/17/2015 Report Date:

To: TODD DOWNHAM/LPD

OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY

STATE ENVIRONMENTAL LABORATORY

707 N. ROBINSON **OKLAHOMA CITY** OKLAHOMA, 73102-6010

General Inquiries: 1-866-412-3057 or selsd@deq.ok.gov

Report of Analysis by Metals

EPA Drinking Water Certification #OK00013

CC: FILE COPY

Name	Qualifier	Value	Units	Analyzed	Method	Prep Type
Arsenic, Total	<	2.00	UG/L	12/11/15	200.8	
Barium, Total		59.5	UG/L	12/11/15	200.8	
Beryllium, Total	<	2.00	UG/L	12/11/15	200.8	
Cadmium, Total	<	2.00	UG/L	12/11/15	200.8	
Chromium, Total	<	5.00	UG/L	12/11/15	200.8	
Copper, Total		5.30	UG/L	12/11/15	200.8	
Lead, Total	<	5.00	UG/L	12/11/15	200.8	
Thallium, Total	<	1.00	UG/L	12/11/15	200.8	
Nickel, Total	<	10.0	UG/L	12/11/15	200.8	250
Silver, Total	<	10.0	UG/L	12/11/15	200.8	
Zinc, Total	<	10.0	UG/L	12/15/15	200.8	
Antimony, Total	<	2.00	UG/L	12/11/15	200.8	
Selenium, Total	<	10.0	UG/L	12/11/15	200.8	
Mercury, Total	<	0.05	UG/L	12/17/15	200.8	

Summary

Labs performing analysis on this Sample:

Metals

GCMS

SOURCE: WILCOX COUNTY:

CITY:

SAMPLERS COMMENTS:

LW PROJECT ID DEQ-066587

* ANALYST

SAMPLE RECEIVING COMMENTS: ICE; SAMPLE TEMP = 2.6 C

ANALYST'S COMMENTS:

(T) Turbidity measured to be > 1 NTV

Greg Goode

State Environmental Laboratory

Goode

D--- 4 -54

MARY FALLIN GOVERNOR

OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY

February 8th, 2016



Dear Mr. (b) (6),

The Oklahoma Department of Environmental Quality (DEQ) sampled water from your house well on December 18th, 2015 as part of a reoccurring sampling event that will be performed approximately every six months. DEQ has offered this sampling to residents that live on, or adjacent to the Wilcox Oil Company Superfund Site. You are receiving this letter because you have provided DEQ permission to enter your property and collect a water sample from your well.

DEQ sampled for four types of contaminants in your private well. Those are: Biological (E Coli and Total Coliform), Volatile Organic Compounds (VOCs), Semi-Volatile Organic Compounds (SVOCs) and Metals.

The first page of the sampling results is for E. Coli and Total Coliform Bacteria E. Coli and Total Coliform were not detected in your well as indicated by the "<" symbol in the Results column

The second of the sampling results is for VOCs. VOCs were <u>not</u> detected in your well as indicated by the "<" in the Results column.

Pages 3 through 5 of the sampling results are for SVOCs. SVOCs were <u>not</u> detected in your well as indicated by the "<" symbol in the Qualifier column.

The last page of the sampling results is for Metals. Several metals were detected (highlighted) at low concentrations, which is considered normal levels and are not considered to be a health risk.

If you have questions about this letter or the sampling data, do not hesitate to call me at (405) 702-5136. Please contact Katrina Higgins Coltrain with the U.S. Environmental Protection Agency at (214) 665-8143 with any questions about the EPA Superfund process or plans for the Wilcox Site.

Sincerely,

Todd Downham

Project Manager, Wilcox Oil Company Superfund Site

Land Protection Division

Oklahoma Department of Environmental Quality

c. Katrina Higgins Coltrain, U.S. EPA Dallas



State Environmental Laboratory Services Division EPA DRINKING WATER CERTIFICATION #0K00013

General Inquiries: 1-866-412-3057

SAMPLE INFORMATION

Sample Number:

066587.015

Collected By: TD

Collected:

12/8/15 1:25 pm

Received:

12/8/15 4:09 pm

TEST RESULTS

Analysis:

Description:

Total Coliforms

Analysis Method:

SM 9223B

Component Name	Result	Unit	Qualifiers	Analyst	Analysis Date
E. Coli	<1.0	MPN/100 mL		BCD	12/9/15
Total Coliform	<1.0	MPN/100 mL		BCD	12/9/15



State Environmental Laboratory Services Division EPA DRINKING WATER CERTIFICATION #0K00013

General Inquiries: 1-866-412-3057

SAMPLE INFORMATION

Sample Number: 066587.016

Collected By: TD

Description:

Collected:

Received:

12/8/15 1:25 pm 12/8/15 4:09 pm

TEST RESULTS

Volatile Organic Compounds Analysis:

Analysis Method:

EPA 524.3

Component Name	Result	Unit	Qualifiers	Analyst	Analysis Date
1,1,1-Trichloroethane	<0.5	µg/L		SAR	12/9/15
1,1,2-Trichloroethane	<0.5	µg/L		SAR	12/9/15
1,1-Dichloroethene	<0.5	µg/L		SAR	12/9/15
1,2,4-Trichlorobenzene	<0.5	µg/L		SAR	12/9/15
1,2-Dichlorobenzene	<0.5	µg/L		SAR	12/9/15
1,2-Dichloroethane	<0.5	µg/L		SAR	12/9/15
1,2-Dichloropropane	<0.5	µg/L		SAR	12/9/15
1,4-Dichlorobenzene	<0.5	µg/L		SAR	12/9/15
Benzene	< 0.5	µg/L		SAR	12/9/15
Carbon Tetrachloride	<0.5	µg/L		SAR	12/9/15
Chlorobenzene	<0.5	μg/L		SAR	12/9/15
cis-1,2-Dichloroethene	<0.5	µg/L		SAR	12/9/15
Ethylbenzene	<0.5	μg/L		SAR	12/9/15
Methyl tert-Butyl Ether (MtBE)	<0.5	µg/L		SAR	12/9/15
Methylene Chloride	<0.5	µg/L		SAR	12/9/15
Styrene	<0.5	µg/L		SAR	12/9/15
Tetrachloroethene	<0.5	μg/L		SAR	12/9/15
Toluene	<0.5	µg/L		SAR	12/9/15
rans-1,2-Dichloroethene	<0.5	µg/L		SAR	12/9/15
Trichloroethene	<0.5	µg/L		SAR	12/9/15
/inyl Chloride	<0.5	µg/L		SAR	12/9/15
(ylenes	<0.5	µg/L		SAR	12/9/15

Sample Number: 547556
Project Code: SW-WE
Agency Number: 1195
Date Collected: 12/8/2015
Time Collected: 1325

Date Received: 12/8/2015
Date Completed: 12/15/2015

Collected By: TD

PWS Id:

Location Code:

Station: Facility:

Report Date: 12/15/2015

To: TODD DOWNHAM/LPD

OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY

STATE ENVIRONMENTAL LABORATORY

707 N. ROBINSON OKLAHOMA CITY OKLAHOMA, 73102-6010

General Inquiries: 1-866-412-3057

or selsd@deq.ok.gov

Report of Analysis by GCMS

EPA Drinking Water Corolication #OK90013

CC: FILE COPY

Name	Qualifier	Value	Units	Analyzed	Method	Ргер Туре
Dilution Factor, Extractab		1.00		12/14/15		
Acenaphthylene	<	20.0	UG/L	12/14/15	8270DM	
Acenaphthene	<	20.0	UG/L	12/14/15	8270DM	
Anthracene	<	20.0	UG/L	12/14/15	8270DM	
Benzo(b) fluoranthene	<	20.0	UG/L	12/14/15	8270DM	
Benzo(k) fluoranthene	<	20.0	UG/L	12/14/15	8270DM	
Benzo(a)pyrene	<	20.0	UG/L	12/14/15	8270DM	
Bis(2-chloroethyl)ether	<	20.0	UG/L	12/14/15	8270DM	
Bis(2-chloroethoxy)methane	<	20.0	UG/L	12/14/15	8270DM	
Bis(2-chloroisopropyl)ether	<	20.0	UG/L	12/14/15	8270DM	
Butylbenzylphthalate	<	20.0	UG/L	12/14/15	8270DM	
Chrysene	<	20.0	UG/L	12/14/15	8270DM	
Diethylphthalate	<	20.0	UG/L	12/14/15	8270DM	
Dimethylphthalate	<	20.0	UG/L	12/14/15	8270DM	
Fluoranthene	<	20.0	UG/L	12/14/15	8270DM	
Fluorene	<	20.0	UG/L	12/14/15	8270DM	
Hexachlorocyclopentadiene	<	20.0	UG/L	12/14/15	8270DM	
Hexachloroethane in water	<	20.0	UG/L	12/14/15	8270DM	
Indeno(123cd)pyrene	<	20.0	UG/L	12/14/15	8270DM	
Isophorone	<	20.0	UG/L	12/14/15	8270DM	
Nitrosodipropylamine	<	20.0	UG/L	12/14/15	8270DM	
Nitrosodiphenylamine	<	20.0	UG/L	12/14/15	8270DM	
Nitrobenzene	<	20.0	UG/L	12/14/15	8270DM	
p-Chloro-m-cresol	<	20.0	UG/L	12/14/15	8270DM	
Phenanthrene	<	20.0	UG/L	12/14/15	8270DM	
Pyrene	<	20.0	UG/L	12/14/15	8270DM	
Benzo(ghi)perylene	<	20.0	UG/L	12/14/15	8270DM	
Benzo(a)anthracene	<	20.0	UG/L	12/14/15	8270DM	
1,2,4-Trichlorobenzene	<	20.0	UG/L	12/14/15	8270DM	
Dibenzo(ah)anthracene	<	20.0	UG/L	12/14/15	8270DM	
l,4-Dichlorobenzene	<	20.0	UG/L	12/14/15	8270DM	
2-Chloronaphthalene	<	20.0	UG/L	12/14/15	8270DM	
2-Chlorophenol	<	20.0	UG/L	1.2/1.4/15	8270DM	60

Sample Number: 547556 Project Code: SW-WE Agency Number: 1195 Date Collected: 12/8/2015

Time Collected: 1325 Date Received: 12/8/2015

Date Completed: 12/15/2015

Collected By: TD

PWS Id:

Location Code:

Station: Facility:

Report Date:

12/15/2015

To: TODD DOWNHAM/LPD

OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY

STATE ENVIRONMENTAL LABORATORY

707 N. ROBINSON OKLAHOMA CITY OKLAHOMA, 73102-6010 General Inquiries: 1-866-412-3057

or selsd@deq.ok.gov

Report of Analysis by GCMS

EPA Drinking Water Cartification #OK00013

CC: FILE COPY

Name	Qualifier	Value	Units	Analyzed	Method	Prep Type
2-Nitrophenol	<	20.0	UG/L	12/14/15	8270DM	
Di-n-octylphthalate	<	20.0	UG/L	12/14/15	8270DM	
2,4-Dichlorophenol	<	20.0	UG/L	12/14/15	8270DM	
2,4-Dimethylphenol	<	20.0	UG/L	12/14/15	8270DM	
2,4-Dinitrotoluene	<	20.0	UĠ/L	12/14/15	8270DM	
2,4-Dinitrophenol	<	50.0	UG/L	12/14/15	8270DM	
2,4,6-Trichlorophenol	<	20.0	UG/L	12/14/15	8270DM	
2,6-Dinitrotoluene	<	20,0	UG/L	12/14/15	8270DM	
3,3'-Dichlorobenzidine	<	20.0	UG/L	12/14/15	8270DM	
4-Bromophenylphenyl ether	<	20.0	UG/L	12/14/15	8270DM	
4-Chlorophenyl phenylether	<	20.0	UG/L	12/14/15	8270DM	
4-Nitrophenol	<	50.0	UG/L	12/14/15	8270DM	
4,6-Dinitro-o-cresol	<	50.0	UG/L	12/14/15	8270DM	
Phenol	<	20.0	UG/L	12/14/15	8270DM	
Naphthalene	~	20.0	UG/L	12/14/15	8270DM	
Pentachlorophenol	<	50.0	UG/L	12/14/15	8270DM	
Bis(2-ethylhexyl)phthalate	<	20.0	UG/L	12/14/15	8270DM	
Di-n-butylphthalate	<	20.0	UG/L	12/14/15	8270DM	
Hexachlorobenzene	<	20.0	UG/L	12/14/15	8270DM	
Hexachlorobutadiene	<	20.0	UG/L	12/14/15	8270DM	
Dibenzofuran	<	20.0	UG/L	12/14/15	8270DM	
2-Methylnaphthalene	<	20.0	UG/L	12/14/15	8270DM	
2-Methylphenol	٧	20.0	UG/L	12/14/15	8270DM	
4-Methylphenol	<	20.0	UG/L	12/14/15	8270DM	
2,4,5-Trichlorophenol	<	20.0	UG/L	12/14/15	8270DM	
4-Chloroaniline	<	20.0	UG/L	12/14/15	8270DM	
2-Nitroaniline	<	50.0	UG/L	12/14/15	8270DM	
3-Nitroaniline	<	50.0	UG/L	12/14/15	8270DM	
4-Nitroaniline	>	50.0	UG/L	12/14/15	8270DM	

COMPOUND	SURROGATE RECOVERIES	RECOVERY %	
P-TERPHENYL-D14		104	

P-TERPHENYL-D14

NITROBENZENE-D5

Sample Number: 547556 Project Code: Agency Number: 1195

Date Collected: 12/8/2015

Time Collected: 1325

Date Received: 12/8/2015 Date Completed: 12/15/2015

Collected By:

PWS Id:

Location Code:

Station: Facility:

Report Date:

12/15/2015

To: TODD DOWNHAM/LPD

OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY

STATE ENVIRONMENTAL LABORATORY

707 N. ROBINSON OKLAHOMA CITY OKLAHOMA, 73102-6010 General Inquiries: 1-866-412-3057

or selsd@deq.ok.gov

Report of Analysis by GCMS

EPA Druking Water Contribution #0K00013

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COMPOUND	SURROGATE RECOVERIES	RECOVERY %	
2-FLUOROBIPHENYL		87	
2,4,6-TRIBROMOPHENOL		108	
2-FLUOROPHENOL		38	
PHENOL-D5		24	

	TENTATIVELY	IDENTIFIED BY		
COMPOUND	NBS LIBRARY	SEARCH	VALUE	UNITS

NU

Summary

Labs performing analysis on this Sample:

Metals

GCMS

SOURCE: WILCOX

COUNTY:

CITY:

SAMPLERS COMMENTS:

WR-8; LW PROJECT ID DEQ-066587

SAMPLE RECEIVING COMMENTS:

ICE; SAMPLE TEMP = 5.1 C

ANALYST'S COMMENTS:

Heather Rhoads (8270DM), (TE1) Sample received on ice during cooling down phase. Analyzed. (NU) No TICs (tentatively identified compounds) were detected above the lower limit of

quantitation for this analysis.

* ANALYST Glathy Phoads

Sample Number: 547556 Project Code: SW-WE Agency Number: 1195 Date Collected: 12/8/2015 Time Collected: 1325

Date Received: 12/8/2015 Date Completed: 12/17/2015

Collected By:

PWS Id:

Location Code:

Station: Facility:

Report Date: 12/17/2015

To: TODD DOWNHAM/LPD

OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY

STATE ENVIRONMENTAL LABORATORY

707 N. ROBINSON **OKLAHOMA CITY** OKLAHOMA, 73102-6010

General Inquiries: 1-866-412-3057

or selsd@deq.ok.gov

Report of Analysis by Metals

EPA Drinking Water Certification #OK00013

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Name	Qualifier	Value	Units	Analyzed	Method	Prep Type
Arsenic, Total	<	2.00	UG/L	12/11/15	200.8	
Barium, Total		93.0	UG/L	12/11/15	200.8	
Beryllium, Total	<	2.00	UG/L	12/11/15	200.8	
Cadmium, Total	<	2.00	UG/L	12/11/15	200.8	
Chromium, Total		8.20	UG/L	12/11/15	200.8	
Copper, Total		10.5	UG/L	12/11/15	200.8	
Lead, Total	<	5.00	UG/L	12/11/15	200.8	
Thallium, Total	<	1.00	UG/L	12/11/15	200.8	
Nickel, Total	<	10.0	UG/L	12/11/15	200.8	
Silver, Total	<	10.0	UG/L	12/11/15	200.8	
Zinc, Total		56.4	UG/L	12/11/15	200.8	
Antimony, Total	<	2.00	UG/L	12/11/15	200.8	
Selenium, Total	<	10.0	UG/L	12/11/15	200.8	
Mercury, Total	<	0.05	UG/L	12/17/15	200.8	

Summary

Labs performing analysis on this Sample:

Metals

GCMS

SOURCE: WILCOX

COUNTY:

CITY:

SAMPLERS COMMENTS:

LW PROJECT ID DEQ-066587

SAMPLE RECEIVING COMMENTS: ICE; SAMPLE TEMP = 5.1 C

ANALYST'S COMMENTS:

* ANALYST

State Environmental Laboratory

Goode

Dana 1 of 1